

Aviation News

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New Chairman of Aero Chamber's Board of Governors: Eugene E. Wilson, vice-chairman of United Aircraft Corporation, who was elected chairman of the Board of Governors of the Aeronautical Chamber of Commerce at the meeting of the trade association's board in Los Angeles last week. Choice of Wilson to the important ACCA post is expected to lend a powerful impetus to the Chamber's efforts toward formulation of a permanent U. S. air policy.

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Negotiations must work out system to account for depreciation, repairs and conversion, spare parts and other factors.....Page 36

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Washington Observer

Westinghouse Announces

A NEW HIGH-FREQUENCY STABILIZED
A-C WELDER FOR LIGHT GAUGE WORK

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For more information on the new Westinghouse High-Frequency Stabilized A-C Welder, call your nearest Westinghouse office, or write today to Westinghouse Electric & Mfg. Company, East Pittsburgh, Pa.

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Westinghouse model WC-AC High-Frequency Stabilized A-C welder—high frequency stabilized—50 amperes at 60 cycles.

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2. Movable core provides very fine stepless current adjustment.
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AIRPOWER—Crises of the effectiveness of our airpower have their source in the joint statement of the British Air Ministry and the United States Strategic Air Forces. The joint plan has been a success, although not yet complete. But it is noteworthy that the purpose they are methodically achieving remains the same—the purpose assigned them in the Anglo-American conference that first planned their use. That purpose, and crises of airpower tend to overlook it, is the destruction of the German Air Force as a preliminary to the destruction of the German ability and will to continue armed resistance.

PORTENT OF THINGS TO COME—Look for no important decrease out of Washington on any issue not directly concerned with the military program now in discussion is under way. Everything now is directed toward that rapidly undertaking and every course of future action depends upon its development. The atmosphere in the Capital is tense with pre-invasion waiting. The magnitude and seriousness of the unperceived operation has finally permeated to the lowest government clerk. Hostile governmental business does on and is Congress routine slumbers continue, but underneath the tension pervas and lesser programs are being held in abeyance.

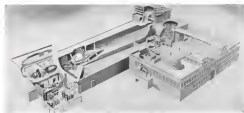
PROBLEM OF GROWTH—In the plans for bigger and still bigger airplanes, one important

factor often is overlooked. That is the accuracy of constructed runways which will handle the growth. Many airports are built on SE-in land or in areas which simply will not handle the type of paving with sufficient strength to hold planes of excessive weights. Every time an airplane designer or builder assumes a new and bigger airplane, airport engineers get a new headache. The size of an airplane, obviously, may have no bounds, but the ability of airports which will hold the weight of the planes may put a limit on aircraft weights.

AIRPORT SITES—At a time when every forward-looking community is thinking about airports or landing strips for the air traffic of the future, the comment of an engineer, with considerable experience, is that when a town gets ready to build an airport, three men go out to select the site. One a Congressman, the second a civic leader or a man from the Chamber of Commerce, and the third a real estate dealer. This probably was merely his way of cautioning communities to select their airport sites with care.

RETURN TO PEACETIME BUSINESS—WFB officials are reticent and emphasizing that efforts to beat the gun on the return to peacetime business will be unavailing. Their only weak, WFB insists will be to draw up war production. Chairman Schuler said recently that it is useless for business to become agitated now

Art's anatomy drawing of new Boeing wing model



Westinghouse

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The modern moisture removal method.



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CHANDLER-EVANS CORPORATION — SOUTH MERIDEN, CONNECTICUT, U. S. A.

ACCA Urges Permanent Air Policy For National Security, World Peace

Executives ask powerful air force, acquisition of bases, expansion of commerce and preservation of large aircraft industry.

By SCHULER RANGS

The aircraft manufacturing industry is making a successful assault upon our country, speaking through its national trade association, the Aeronautical Chamber of Commerce, has urged formalization of a permanent American aerospace policy to safeguard national security and assure world peace and prosperity.

Top executives of leading corporations, meeting in Los Angeles, agreed on a four-point guide for such a policy:

- Maintenance of Army and Navy air forces at such strength and in such a state of readiness as to pre-
- Acquisition and maintenance of air bases essential to our security and that of overseas trade.
- Facilitating the orderly and economic expansion of domestic and international air transport and private flying.
- Preserving a strong aircraft manufacturing industry.

The statement of the Aero Chamber proved to be a modification of an original proposal, voted down, which was to request President

Roosevelt to appoint a presidential commission, similar to the Morrow Board of 1933, that would evolve government policy to cover aircraft and air transport industry during the post-war period.

Eugene E. Wilson, vice-chairman of United Aircraft Corp. and now chairman of the Chamber's board of governors, left undetermined what approach the Chamber might make in behalf of the industry to win assistance in Washington. The aircraft manufacturers will have the peace with enough profits to carry the industry through the conversion period.

Other issues to be taken up—He indicated that the vital issues of contract negotiation, contract termination and post-war aircraft money would be taken up at subsequent meetings of the Chamber's executive committee.

A comprehensive "estimate of American air power" issued later



LATEST PHOTO OF NACA MEMBERS:

Members of the NACA posed for this picture at the latest meeting in Washington. Front Row: William Luffersood, vice-president—engineering, American Airlines; Dr. T. P. Wright, director, Aircraft Research Central Office, Aircraft Production Board. Left to right: Dr. William F. Durand, professor emeritus of mechanical engineering, Stanford University, California; Maj. Gen. Oliver P. Schmidt, U.S.A., assistant chief of air staff, material, maintenance and distribution, Army Air Forces; Dr. Vannevar Bush, director, Office of Scientific Research and Development; Vice Admiral John S. McQuinn, U.S.N., deputy chief of naval operations (air); Maj. Gen. Barney M. Giles,

U.S.A., chief of air staff, representing Gen. Henry H. Arnold, commanding general, AAF; Dr. Orville Wright; Dr. George W. Lewis, director of aeronautical research, NACA; Dr. Jerome C. Hunsaker, chairman, NACA; John P. Vesper, secretary, NACA; Dr. Charles G. Abbot, secretary, Smithsonian Institution; Dr. Edward Warner, vice-chairman, Civil Aeronautics Board; Dr. Lyman J. Briggs, director, National Bureau of Standards; Rear Admiral Ernest M. Poe, U.S.N., special assistant (material), Bureau of Aeronautics; vice William A. M. Barlett, Assistant Secretary of Commerce; Dr. Francis W. Reichelderfer, chief, U.S. Weather Bureau.

to go with the four-point policy program, deals at length with the Morrow Board and it is planned to place it in the hands of members of Congress, military leaders and possibly the White House.

Strong Air Force Urged—The Morrow Board held that a strong air force is vital to national security, that the backbone of this air force must be a strong private industry, and that a long-term continuing program of procurement is essential to the creation of adequate engineering staffs and the development of new technology.

"Then," the statement said, "the board find responsibility for America's superpower jointly upon the government and private industry."

The statement's summary of an estimate of the future emphasizes: "International, domestic and private air transport offer a source of new wealth and employment, rapid development is dependent upon an improved technology stemming from a strong competitive manufacturing industry, a domestic military and naval air force supported by adequate air bases is a prerequisite of free communication by land, sea and air. Only an air-minded people can provide that controlling air power which, in the hands of free men is the hope of peace and prosperity."

Financial Security—Wilson gave assurance that action of critical interest to the industry such as financial security for post-war investments will develop under the guidance of East and West Coast manufacturers committees of the Chamber.



TORPEDO BOMBERS: BRITISH AND AMERICAN:

British Barracuda bomber (left) and the American Avenger. Both have been in service a little more than a year. The Barracuda, nemesis of the Tirpitz, carries its torpedoes or bombs on external racks, the Avenger is a torpedo bay. More than 2,800 Avengers

have been delivered by Eastern Aircraft Division of General Motors. Photo shows wings folding back. The purpose of the Barracuda is use of the first released by the British Independent Services and shows the simplest lift structure and wing flaps.

Officers Elected

Eugene E. Wilson, vice-chairman of United Aircraft Corp., was named chairman of the Board of Governors of the International Chamber of Commerce at the meeting of the trade association's board in Los Angeles last week.

Douglas Doudant, head of Douglas Aircraft, was named vice-chairman.

Members of the Executive committee include: William Douglas, Ernest H. Brech, Bendix Aviation, Glenn L. Martin, of Glenn L. Martin Co., and P. G. Johnson, of Boeing.

James P. Murray, Boeing vice-president and eastern representative, was re-elected president of the Chamber. L. D. Bell, Bell Aircraft, and LeRoy H. T. Cobb, Northrop, were named vice-presidents. Col. Harrison Brand, secretary and John R. Morgan, treasurer.

Members of the East Coast Committee are: E. E. Gilman, Sperry, chairman; Glenn L. Martin of Glenn L. Martin Co.; J. Carleton Ward, Jr., Fairchild; Victor Evans, Avian Corp.; Alfred Mauchly, Republic; Ernest Brech, Bendix; L. D. Bell, Bell Aircraft; C. J. Beckman, West Aircraft; and Wilson. West Coast members: Harry Woodcock, Consolidated Vultee, chairman; J. H. Kordelberg, North American; Robert E. Gross, Lockheed; T. Claude Ryan, Ryan; Lamotte T. Cobb, Northrop; P. J. Johnson, Boeing; and Donald Douglas, of Douglas.

30,000 Lend-Lease Planes Sent Allies

1,180 turned over in first 60 days of this year, Crowley reports.

Thirty thousand airplanes have been shipped by the United States to its allies in the three years of Lend-Lease operations, of which more than 1,180 were turned over during the first 60 days of this year.

John T. Crowley, Foreign Relations administrator, in making this report, said that between March 11, 1941, and March 1, 1944, the United States sent about one-fifth of its aircraft production abroad. **\$2,400,000,000 Sent**—The value of the planes sent under Lend-Lease was set at \$1,500,000,000, while those purchased by our allies had a value of \$900,000,000. Crowley said that, while the Russians and British graduate most of the planes their forces use, our Lend-Lease planes have been a vital supplement to their output.

"American planes in the hands of Russians, British, Australian, Chinese, Dutch and other Allied armies are doing today a heavier toll of our enemies on all fronts and by side with our own Army and Navy Air Forces, save the world in the world," Crowley said.

Air Strength Pooled—He noted that British and American production and air forces have been pooled in the air campaign of North Africa and have substantially weakened Germany's fighter force.



Army Post-War Military Policy Views Outlined—Secretary of War Stimson, last week, appeared before the first session of the Woodrum Committee on Post-War Military Policy to present his views as a single department for the armed services, in which the air arm would retain equal stature with ground and sea forces. Stimson is seated in the foreground, and to his

right are Brig Gen William F. Tompkins. Members of the committee, left to right, are Cortello, Johnson, Merritt, Stager, Thompson, Vinton, May, Woodrum, Woodworth, Peters, Mott, Short, Cole and Miller. In the background are Committee Attaches Lucian Butler and Min Betty Fox. Nine members of the Committee were not present when picture was made.

Aviation Plays Dominant Role In Post-War Defense Hearings

Question of unified or separate air forces served as Army witnesses present proposals at Woodrum Committee meeting on future military policy.

The role of aviation appears to be the chief concern of Congressmen charged with the formulation of post-war military policy. A series of Army witnesses before the Woodrum Committee last week outlined their proposals for a single department of national defense, and committee questioning centered around the role of the air forces in the reorganization.

There was general agreement on the broad principle of a single department and differences in detail apparently are sharper in discussion than in actuality.

Old Battle Branded—The old battle between advocates of unified and separate air forces developed, yet even here discussion centered more on details than on principle. Robert O. Lovett, Assistant Secretary of War for Air, and Brig Gen H. S. Harnett, Jr., Assistant Chief of the Air Staff, ran into particularly sharp questioning from Naval Affairs Committee Chairman Vinton and Rep. Mott, Naval Affairs Committee member and a Marine Corps Reserve aviator colonel, on the question of the naval air arm. But both had made clear in their prepared testimony

that they took expression of the Navy's need for specialized planes operating with seaborne forces.

In substance, Army witnesses advocated establishment of a single department of the armed ser-

VICES comprising ground, sea and air forces. The historic antipathy of the armed services toward a civilian hand is reduced in the suggestion for a U. S. Joint Chiefs of Staff organization headed by a chief of staff to the constitutional commander-in-chief (the President), and including the chiefs of staff of the Army, Navy and Air Force. A fourth element and second new element would be created as the Director of Common Supply Services, functioning as a subordinate position to the chief of staff.

Military Strategy—The functions of the chief of staff would be in the field of military strategy and in making budgetary recommendations and allocations of appropriated funds. As the President's principal military adviser, they would have the legal authority to report to him direct. Under this plan, the Secretary for the Armed Services would be designated as a subordinate position charged only with administrative detail and as principal adviser to the President and Congress on political and administrative matters.

Lovett and Harnett were questioned at length on their conception of a joint air force organization with Vinton and Mott seeking to obtain their views on details. It was evident the Navy would resist on the recently far continued development of air forces trained in seaborne operations and completely independent methods of meeting the needs of the Navy's air arm. Lovett had

Army, Navy Agree

Secretary of War Stimson told the Woodrum Committee on Post-War Military Policy last week that Secretary of the Navy Knox was in substantial agreement on the need for a single department for the armed services after this was Admiral Kimmel, Commander-in-Chief of the United States Fleet and Chief of Naval Operations, indicated assent with the Naval protocols in his recent report to Knox.

It is known that Admiral Kimmel, who has been rechartered the Navy's primary post-war studies, is in substantial agreement on the principles and has been advocating similar steps.

Navy witnesses will appear before the Woodrum Committee soon to present their views.

suggested that specialized types of aircraft could be given the ground-to-air forces and that all others go into the Air Force.

Special Types Planes—Mass indicated that one question the committee would consider thoroughly would be provision for development and acquisition of special types of planes needed by ground and air forces for their particular needs, saying that he felt either the British or the Germans would have been the war in 1944 if one or the other had given consideration to special types of planes. The British Navy did not have an adequate sea arm, he brought out, far as the Navy was concerned, because planes actually were assigned to the British Navy by the RAF with no thought given development of special types.

The United States Navy, said Mass, would have been in "a very bad position in the Pacific" if it had had to depend on the Army for air power. The battle of Midway would have been lost, he added.

Made Air Force Bomber—Lawson concluded that the naval arm would have to remain with the Navy, drawing a distinction between seaborne air strength and land-based strength, all of which he indicated would come under the air force in his concept of the new organization.

Lowell stressed the benefits to be derived from a single air force, listing them as (1) a single unified procurement agency, with the Navy establishing requirements for fleet types, the Army for specialized aircraft peculiar to its needs and the Air Force for all others, (2) consolidation of research and experimental establishments, (3) consolidation of engineering and production supervision, (4) savings in overhead or organizational costs at headquarters, staff, intelligence, weather, photographic work, air charts and communications, (5) common personnel and recruitment division, (6) consolidated training establishments, (7) storage and issuance of parts, and depot and warehousing functions, (8) consolidated ground organizations.

Secretary of War Stimson and several other Army witnesses asked an early decision on the general principles of a single department for the armed services. Once these are decided, Stimson said, "even though not carried out until after the termination of hostilities, at least in the European theater, it is made far easier to settle questions of duplications."

Civil Flying

The Woolfson Committee on post-war military policy is taking a keen interest in the attitude of the Army toward civil aviation, with Chairman Woolfson and Ray Mott expressing a particular interest in several of its phases.

That the present farmed-out civil aviation scheme in CAA-WTA schools released by cancellation of the program may have some bearing on cancellation of future policy was indicated by Woolfson, who told Robert A. Lovett, Assistant Secretary of War for Air, that it was his feeling that the problem should be grouped and straightened out and that "I am frank to say that explanations of the situation confronting between 6,000 and 8,000 civilian pilots in the government are not satisfactory."

General Arnold probably will be called to discuss the matter with the committee. Mass suggested from Brig. Gen. William P. Tunison, director of the Special Planning Division of the War Department, which is working on post-war plans of the Department, whether any consideration had been given to utilization of CAA airports in the post-war program. Tunison said no such plan had been completed.

Sweetser Heads C-W Public Relations

Washington representative eased duties after resignation of H. E. Lawrence; Richard W. Darrow to be assistant.

A new public relations set-up has been announced by Curtiss-Wright Corp., under which Ben W. Sweetser, associate director, succeeding H. E. Lawrence, who has resigned, with Richard W. Darrow to be assistant to the post as assistant to Sweetser.

Sweetser has been Curtiss-Wright public relations representative in Washington for the past year and Darrow has been assistant director of public and external relations for Curtiss-Wright's Columbus plant since August, 1941.

Development Banker—Sweetser has become widely known in aviation circles since joining the corporation in Washington.

An investment banker for several years, Sweetser is



Sweetser

currently, Sweetser has been in automotive accessory manufacturing more recently as vice-president and director of the Differential Wheel Co., of Detroit. He is a graduate of Phillips Exeter Academy and Sheffield Scientific School, Yale University, and is widely known as an amateur golf player.

Darrow, before joining Curtiss-Wright, was assistant city editor and aviation editor of the Columbus Citizen.

AVIATION CALENDAR

May 1—J. Edgar Hoover, Director of Federal Bureau of Investigation, will be in Washington, D.C., for the week of May 1-5.
May 10—British Warplane Association Office, 100, Whitehall, London, will be in Washington, D.C., for the week of May 10-14.
May 15—National Conference on Aviation, 100, Whitehall, London, will be in Washington, D.C., for the week of May 15-19.
May 20—Meeting of Staff of Department of Defense, 100, Whitehall, London, will be in Washington, D.C., for the week of May 20-24.
May 25—Light-Bulb Salesmen's Association, 100, Whitehall, London, will be in Washington, D.C., for the week of May 25-29.
May 30—National Conference on Aviation, 100, Whitehall, London, will be in Washington, D.C., for the week of May 30-June 3.

May 31—National Conference on Aviation, 100, Whitehall, London, will be in Washington, D.C., for the week of May 31-June 4.

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Pending SWPA Order Awaited for Hint of Property Disposal Policy

Early action expected on problem of disposition of aircraft and airports; regulation may divide job among other agencies.

By WILLIAM G. KEY

Surplus Property Regulations No. 1, giving for the first time a glimpse of the agency's plans for property disposal, will be issued by the Surplus War Property Administration within the next few weeks. Drafted and approved some time ago, it will be forthcoming, it is expected in Washington.

Two of the most awkward and troublesome problems facing the SWPA concern aviation, the primary one being surplus aircraft. A special advisory subcommittee has been set up and its first meeting, scheduled to begin last week but delayed, should start this week.

Aircraft Disposal—The second problem is one of aerial disposal, in which it must be decided whether aircraft will be returned or whether the land will be sold to the original owners. It is being recommended that municipalities, counties, states and institutions be encouraged to acquire fields at greatly reduced cost if needs for such facilities exist.

While no one outside the agency has a very definite knowledge of what No. 1 regulation will con-

tain, it seems established that, in addition to laying down fundamental policies, the regulation will divide the job among the disposal agencies—commerce goods, treasury procurement division, capital goods producer goods, a civil aviation division within the Reconstruction Finance Corporation, ships and maritime property to the Maritime Commission, and land, food, administration. It is possible that the disposal of surplus aircraft will be vested in the Civil Aeronautics Board on the same principle that ships are being disposed of through the U-S Maritime Commission.

Phase on SWPA—The extent that Surplus Property Administration will L. Clayton expects to be coordinated with aircraft and airport problems in indicated in the central organization of the SWPA. Not only has a subcommittee been created to deal with aircraft disposal problems, but L. Welch Pagan, chairman of the Civil Aeronautics Board, is a member of the Surplus War Property Board, which, significantly, when created at the suggestion of the Bureau report, did not contain a CAA or CAA representative.

ATA Maps Policy

Air Transport Association divisions were unable to create a quorum at their scheduled meeting last Monday, and a small committee has been working to outline the industry's views on disposition of surplus aircraft.

Industry spokesmen were scheduled to appear before meetings of the surplus aircraft advisory subcommittee headed by L. Welch Pagan, chairman of the Civil Aeronautics Board and aviation member of the Surplus War Property Board.

The Pagan group also postponed its sessions and is expected to get under way with its discussions this week.

The ATA outline will be submitted to board members and then presented to the Pagan group. Aircraft manufacturers, labor and other groups also will present their views.

This board, continuing representatives of War, Navy, Treasury, RFC, Maritime Commission, WPA, Federal War Food Administration, Federal Reserve, Federal Reserve Agency, State Department and Foreign Economic Administration, will set up "to advise and assist him [the surplus property administrator] in developing a disposal policy for all government agencies." Clayton, who serves as chairman of the board, is authorized to "call on any other agency . . . in dealing with special problems."

Mail Order Business—An official of SWPA also asserted last week that the Army Air Force specialists dealt in Memphis, Tenn., which last November issued a 12-week disposal schedule of aircraft surplus, would be permitted to continue its disposal operations until the SWPA Regulation No. 1 is issued.

Packard Head Sees Quick Reconversion

With the end of war production, Packard expects to swing its expanded facilities into increased aircraft production, according to George T. Christopher, president and general manager.

Christopher said that meeting the demand for war products now properly requires the company's post-war thinking to plans and personnel planning, but "we are in good shape on both items, and we look to our field organization to do a similar job in anticipating a broadened future market."

Replying to Green Light's comment that if Washington were a go-ahead state, Packard can build some cars along with its continued war manufacturing and added that the company could start producing cars in about three months after getting the green light, provided materials are made available.

Packard's March output set a record, said Christopher.

Amended Vinson Bill May Effect Termination Power Compromise

Revised measure provides authority for dealing with all types of cancellations; wider control for comptroller general.

Contract termination legislation that may form the basis for compromise on the controversy over the role of Comptroller General Lindsey G. Warren is now before the House.

Originally prepared by the Naval Affairs Committee to set up procedures for the Navy Department in settlement of claims arising from termination contracts, the Vinson bill—H.R. 4466—has been amended to provide for termination of all types of war contracts. While it does not parallel the George-Murray bill now before the Senate, it is designed to meet the needs of several purposes.

Issue Power—The new provisions for the role of the comptroller general would give him more power than is afforded him in the George-Murray bill and more clearly meet the general view of the House membership, which has been expected to balk at the provision in the George-Murray bill giving Warren power only in the event of fraud and then only when fraud is indicated by the records.

The Vinson bill gives the comptroller general a dual function. First, to the extent he deems necessary, Warren would designate representatives to act as observers in settlement negotiations. Second, he would investigate settlements by each contracting agency through "selective post-audit procedures similar to those routine in commercial practice." The comptroller general would be given access to all books and records of contracting agencies and relevant records of contractors, and required to make recommendations for improvement in settlement methods and procedures. All records would have to be kept five years.

Responsibility—However, the bill provides that contracting agencies operating under the wartime policies and procedures of an interdepartmental committee will have exclusive responsibility for all termination settlements. Once a settlement is made, it cannot be requested except for fraud. Fiscal officers involved in settlements remain responsible for cancellations

or inefficiency, but not for payments where fraud later is shown. Membership on the interdepartmental committee will consist of the Secretaries of War and the Navy, the Secretary of the Treasury, the Attorney General, chairman of the U. S. Maritime Commission, chairman of the board of the Reconstruction Finance Corp. and the comptroller general, or their representatives. They would be required to organize within 30 days of the passage of the act.

Liability—The committee also would have the duty of prescribing regulations for the disposition of surplus property. Great latitude is given the committee in this field and observers believe the present machinery would largely remain functioning, since the bill directs agencies to dispose of surplus property through the central agency then functioning for that purpose.

The Vinson bill provides for a Settlement Review Board to be set up within each department concerned, which would have to review settlements of more than

\$50,000 before the settlement became binding on the government. Approval of bureau checks would be required for settlements of more than \$100,000, and the chief of the contracting agency when more than \$1,000,000 is involved. This applies both to prime and subcontractors, and specifically to subcontractors even when the settlement is made by the prime contractor. Contracting agencies are left free to negotiate settlements with subcontractors when such settlements would be feasible although the committee's report on the bill said it recognized that in many cases it would be more practical to have the prime contractor handle matters with subcontractors. It also pointed out that settlement negotiations of prime contractors would be an essential part of the personnel pool required to handle subcontractor negotiations.

Payments—Interest payments to the extent of 100 percent of the contract price for completed items are provided. Ninety percent payment exclusive of profit would be permitted as the balance of the contractor's claim, this amount to be determined by the contracting agency on the basis of the claim of the contractor or other data. Additional interest payments could be made when deemed necessary to protect the public interest, but must be "with or without" the amount due. Detailed proof of claim is not required for interest payments, which are to be made as quickly as possible without incurring risk at payment. Contractors obtaining payment would have to pay a penalty of 15 percent a year.

The contracting agencies also would be permitted to guarantee loans to contractors, or to participate in such loans.

Property Removal—Property relating to a terminated contract must be removed by the government within 60 days after demand by the contractor, or the contractor may move such property at its risk and expense if the government. Removal requests, however, constitute a waiver of any contract rights to purchase such property from the government.

Where a contractor has claims against more than one contracting agency, such claims may be consolidated in the agency having the largest share and settled as one claim, with other agencies participating.

Industry Gets 'Go' On Peace Models

London calls aviation executives as NAWPC meeting. WPA section develops list of proposals for post-war program.

The aircraft manufacturing industry, heretofore held strictly to the development and production of warplanes, has bent given the green light to develop prototypes of goods the industry will produce after the war, whether co-operating, warplane engines, automobiles or railroad cars.

Leading aviation executives attending meetings of the National Aircraft War Production Council in San Antonio last week were advised by Dr. A. E. Lombard, spokesman for the WPA Aircraft Production Board.

Quantity No Longer Great Problem—Quantity of production no longer will be the No. 1 problem of warplane builders and, as has been reported previously by AVIATION NEWS, the emphasis from now on will be on perfecting American military aircraft to meet combat tactical requirements, such as speed, climb, armament and elimination of weak spots revealed in aerial warfare on all fronts.

Dr. Lombard said the industry leaders that "we" had set back in production numbers. From now on we'll want you to make top-grade weapons of the airplanes you build."

Points to Axis' Mistake—He pointed against the United States' falling into the warplane production trap that apparently has impaired Germany's air combat strength. He said there is every indication that when Germany approached her aircraft production strength in 1944, she failed to consider the need for steady advancement of tactical quality of her planes.

That they now are free to fill their post-war inventory with models of the types they hope to build and sell throughout the world after the war ends apparently came as a surprise to many manufacturers, whose previous information has been quite to the contrary.

WPA Order Chief—Dr. Lombard advised them that the warplane production order under the War Production Board Order No. P-43, of Mar. 8, permitting "laboratories" to obtain materials and build prototype articles for manufacture after the war.



OPA Adds Pressure To Ration Air Gas

Increasing complaints from auto owners that private flyers are squeezing away much of the supply of 73 octane gasoline. Discussion of private and fixed-base operators at a meeting of OPA's gasoline industry advisory committee last week indicated the sale of War Training Service planes to citizen holders has brought new pressure for private plane fuel control.

Boers Aviation Near—OPA spokesmen say the public will not support claims that strictly private flyers are entitled to any more or as much gasoline as the holders of auto drivers. Thomas Boers, OPA officer in charge of automotive supply rationing, said an effort would be made to avoid denouging any air field operators, but that the rationing order might be expected in two or three weeks.

National Aviation Trades Association outlined in a release what it believes to be the rationing provisions that will be required. (1) fixed base operators would get 50 hours of fuel for each new student; (2) holders of pilot certificates would be allowed fuel for two hours, 15 minutes per month to be used for flight instruction; (3) private owners would get 10 hours of fuel per month, not allowable if qualified to receive fuel for recreational flying; (4) owners and operators would be required to book flights with a local airport; (5) essential to the war effort, and monthly allocations would be based on log book records.

Class Little Fuel Saving—NATA's report against rationing was sharply drafted and was signed by John B. Wilson. The Association contends that rationing will cause private planes to be stored or disposed of; operators have been engaged in war training of pilots with no other rationing civilian business and may have to shut down; closure of the War Training Service program should make more gasoline available, not less, all private aviation activity should be added by sale of WTS planes, with use only one-fifth the fuel WTS was using, many air mail services are as essential to the war effort as are other forms of business transportation, there are 30,000,000 private planes, valued \$3,000,000,000 each.

Manufacturers, Distributors Group Organizing Post-War Program

More than 40 parts, supplies and equipment firms comprise expanding trade association preparing plans to meet problems of war and peace.

By BLAINE STURGEFIELD

A merchandising committee of Aviation Distributors and Manufacturers Association, appointed by ADMA President Ray Snyder, will "study all phases of the merchandising of aviation parts, supplies and equipment." George A. Ferry, association secretary, said the committee is preparing for the education of consumers in effective contact with users.

The committee's program, and the setup and objectives of ADMA, were explained during a conference at Philadelphia group headquarters last week.

Organized Year Ago—ADMA, organized early last year, has a Distributors Division and a Manufacturers Division. At present, it has more than 40 members. Officials said they estimate about 100 firms eventually will join the association. Members and prospective members make and sell gen-

eral aviation goods such as batteries, tires, hose, paint, spark plugs, propellers, testing equipment, and so on. Engines are not included, but engine parts may be, in the future.

Makers and sellers of airplanes, and the parts made specifically for these planes, are not included in ADMA. Trade group of the light plane builders is the Personal Aircraft Department of the Aeronautical Chamber of Commerce.

Ferry to Aid in Policy Formulation—ADMA has retained George A. Ferry, specialist in trade and industrial practices, to assist in the formulation of policy, and, as secretary-treasurer, to conduct the organization's business at its headquarters, 545 Arch Street, Philadelphia 8, Pa. Vice-presidents are C. B. Beach, B. G. Corp., New York, and W. F. Smith, Jr., Supply Division, Inc., Baltimore, Md.

No rules and regulations trade practices will be laid down by the ADMA board of directors. Its policy is to give information and advice, and to promote friendly cooperation between manufacturers and distributors and with their retailers and final users.

Scope of Work—ADMA headquarters will investigate matters of interest to its members, cooperate with the Federal Trade Commission, make cost studies, try to improve accounting systems, study and advise on legislation of government-owned supplies and the termination of war contracts, and on wage incentive plans and pension systems. It will give attention to interference of credit and simplification of laws, has issued up to the present 40 informative bulletins.

Secretary Ferry emphasizes the Association's intention to observe the provisions of the anti-trust laws. He said that in 40 years of service to business associations, his firm has seen no permanent benefit accomplished through circumvention of these laws.

Won't Pass on Distributors—"We will not establish any list of so-called 'legitimate wholesale distributors,'" Mr. Ferry said. Under the law, he explained, the Association can discuss the advantages of different types of selling policies, such as selective distribution, but it cannot and will not attempt to restrict the trade at anyone.

Some producers and distributors have proposed measures to keep retailers' interests out of the aviation field. Officials of ADMA said there is no legitimate means to effect such restriction. They added that, after surveying the prospects, the trade people usually find aircraft potential business too small to interest them.

Trade Practices Told—General leaders in both divisions of ADMA have given expert advice on trade practices in addresses before membership. Among them are T. G. Tynan, W. F. Smith, L. G. Mason, Dwight F. Joyce, R. J. Montgomery of General Motors, James A. Rodle, Radio Corp. of America, L. E. Neville, editor of Aviation Magazine, and Mr. Ferry.

The Merchandising Committee has a 14-point study agenda, including potential market; standardization of parts for minimum stock and maximum turnover; standardization of definitions; second forms, returned goods policy; inventory systems.

Standardization—Asked if they



WE PUT OUR HEADS IN THE CLOUDS AND MADE RAINDROPS TO ORDER

When do icing raindrops fall on a wing in flight? How do different speeds, wing sections, and roadway snow affect that process? That's what we wanted to find out. And this problem led to some very interesting raindrop research, conducted with the help of Donald Guggenheim Aircraft Institute, Akron, Ohio.

First we poked our heads into the clouds—look them apart—scored them with our windproof nets. Then we constructed wing sections which, fixed one of them on a machine so it could be whirled in controllable

speeds. Next we constructed mounted paper onto the leading edge. Then we started things whirling.

Measurements of one specific size were obtained at a fixed point on the roadway. By checking the mounted paper, the raindrops were counted and their position plotted in relation to the leading edge. We did this again and again—, with different speeds, roadway snow, wing angles, and airfoil surfaces.

The results are graphs that tell us the story of where freezing rain hits a wing, so that now we know how

far back from the leading edge De-Icers should extend for adequate protection.

The B. F. Goodrich Co., Akron, Ohio



CLAMPS PROTECT AILERONS

Small plane owners may save aileron repair bills with protection clamps such as those invented by Ralph Barton, maintenance man at Philadelphia Field II, Southwest Army's primary training school near Phoenix, Ariz. From spare materials, he devised a protective bar that covers the aileron's leading edge.

MAKERS OF MORE THAN 80 RUBBER AND SYNTHETIC RUBBER AVIATION PRODUCTS

THE AIR WAR

COMMENTARY

Mighty Allied Aerial Arsenal Faces Biggest Test in Invasion Job

Terrific air battles inevitable, with planes forced to multiple role of knocking out Luftwaffe, paralyzing communications and blinding and strafing enemy installations and troops.

During the invasion of Europe, our United Air Force will operate in three distinct phases. The first big job is to knock out enemy air power. The Strategic Air Forces already have made considerable progress in this item by destroying thousands of Luftwaffe fighters in the air and on the ground, and potential thousands which will not come off the production lines on account of the smacking attacks on vital aircraft factories.

However, no matter how well this part of the job is done, ter-

rific air battles are practically inevitable since the invasion starts, as General Eisenhower himself has recently indicated. Allied fighters mean land, air and destroy the swarms of improved enemy bombers and fighters now in reserve which will concentrate on the landing forces. Allied medium and light bombers and fighter-bombers must strike at enemy bomber bases to knock out aircraft and facilities. Here, too, a start has been made already and the line has been moved back, but in the nature of

'Tarmac Duty'

The Navy has introduced a new term for ground handlers at airports and flight bases and has formulated a fixed period before ground class scenes go into flight, says sources as "tarmac duty."

In addition to unloading planes from before pre-flight courses were available, the new duty gave the potential pilots practical experience in handling aircraft on the ground at various air stations on the continent, and added in familiarizing them with Navy aircraft types.

the case it cannot all be done in advance.

Flushing the Battlefield—The next task is to smash enemy supply lines and concentrations. During the last two weeks of April less than thousands of tons of bombs, including a record \$400-ton mission by the RAF, have been dropped on railways, junctions, locomotive repair shops, canal locks and bridges, to disrupt communications as far as possible before the big day. However, there will be a vast amount of unfinished business along this line which cannot be done until the time arrives. Similarly as regards the smashing of defensive installations. Since Christmas week the "ravine course" in the Pas de Calais area has taken a most terrific pounding, and these installations have almost certainly been badly smashed up and moved farther inland. But here again new construction goes on apace, and it is more than probable that all types of bombers, including the Forts and Liberators, Lanks and Halifaxes, as well as the mediums and light, will have to be thrown into the fray for a time when D-Day arrives.

Parley Next December—As the fighting itself proceeds, fast attack bombers and fighter-bombers will be used directly against enemy troops and ground objectives. Airborne troops in transports and gliders and paratroopers will lead behind the enemy lines and perform dangerous and highly specialized jobs with duck-like precision. Gas embolism, tank concentrations, supply and ammunition dumps will have to be knocked out.

Low-flying attack planes will



WANTED: 6,000 MILE AIRLINE IN A HURRY

On June 26, 1943, a 4-engine Douglas Sikorsky flying boat took off from Manhattan Bay headed for Fayon, Ireland, non-stop. It was the first of the fleet of transports of American Export Airlines. Behind that historic take-off were years of planning and experimental flights. Now the war was on, full blast. Our government had urgent work for the new airline.

Intensive pilot training was organized. A Link Trainer was installed—then another. In the Link, pilots carefully rehearsed approaches to faraway ports they had never seen. Among them was Bill Easer, veteran of a million miles of ocean flying.

By the end of 1943—18 short months after that first payload flight—American Export Airlines was operating a fleet of big flying boats in regular service to Europe...Africa...South America...11,574 route miles. Three hundred forty-three Atlantic crossings had been made.

This is the story of American Export Airlines...a story of American enterprise; know-how; the will to win! Link is very proud of its part in that story.

LINK AVIATION DEVICES, INC.

Binghams, New York

LINK MANUFACTURING COMPANY, LTD., SARASOTA, FLORIDA

Bill Easer, Chief Link instructor, charts a "to do" course for the Link of American Export pilots. Link Trainer "The Link has taken the mystery out of any single flight, and has been a vital factor in the record our pilots have chalked up. All our pilot officers never leave and regular refresher courses on the Link Trainer."



BATTERED HILLCAT COMES HOME:

Two Hellcats of the "Locky 12" squadron made it back to its carrier after a direct hit by a three-inch anti-aircraft shell which knocked out its radio and damaged its arresting gear. Despite the damage, suffered at Kew-Forest, the pilot got back for a crash landing, shooting down two Zeros on the way.

drop light bombs and "paratroops" carry out skip-bombing attacks, and heavily strafe their objectives with machine gun and cannon fire. Fast reconnaissance ships will streak over enemy territory and bring back the indispensable photo intelligence required in modern operations. And, during all this, fighters must maintain practical control of the air. Without this, the battle will not be won.

Equipment—All this sounds like a big order for tactical manpower. Do we have the staff, and enough of it? At first of all we have two Tactical Air Forces, RAF and AAF, with the finest available leadership in air-ground cooperation (See *ANTIPOD NEWS*, Apr. 15, page 18, for organization chart.) Practically the entire North African staff teams are there: Blomhower, Todder, Spaatz, Doolittle, Cunningham, Breivart, Montgomery, the leaders who hammered out the air-ground pattern of victory a year ago. The same staffs are available as then, in most cases in greatly improved versions, and in sufficient quantities, plus some powerful new models. A few examples follow.

Fighters and Fighter-Bombers—Improved American models in this class include the latest Lightning, which can carry twice the bomb load as last year, and is an escort fighter far double the range. The Mustang-powered Mustang is a great improvement over the Allison-powered A-36, used with such success in the campaigns of Sicily and Italy. The Thunderbolt was retuned in the Tammam campaign, and since then has become the backbone of the British-based fighter force. Its very heavy firepower (eight 50's), superior performance at altitude, and amazing ability to absorb punishment, make it a tough customer. Now effective with water-injection and wide-angle propellers have a greatly improved rate of climb. All of these 400-mph fighters double in brass as effective fighter-bombers, with fighter protection.

Their British alternatives are not less effective. In the Thunderbolt weight class is the Hawker Typhoon, with 2,800 hp Napier Sabre engine and four 50-mm cannon, a highly effective low and medium altitude fighter and fighter-bomber. The latest ones have full wing teardrop canopy. The Spitfire Mark IX, though lacking the long range of the Mustang and Lightning, is still one of the world's

Navy Pilot Costs

Despite the discontinuation of all War Training Service school contracts by the Navy Department effective by the end of the fiscal year, not one dollar will be saved over the amounts previously appropriated for such preliminary training. Naval officers advise the House Appropriations Committee. Reason given is the "increased rates for subsistence and salaries."

During the next fiscal year beginning July 1 an average of 6,000 primary training students (2 weeks' course) will be offered at about 10 bases instead of 4,000 during the current year, with the flight out per month decreasing from 625 to 533-1/3, although flight hours per month per student will rise from 30 to 44.

A total of approximately 18,377 students will enter Naval intermediate training next fiscal year, against about 20,000 this year. Flight hours per student per month will rise to 49 from the present 36.4, while cost per flight hour dropped from 1 from \$27.60 to \$20.77. Graduates are estimated at 38,242 against the current year's expectation of 30,430.

outstanding medium and high altitude fighters. The newly named, Merit 232, fitted with Rolls-Royce-Griffon 1,600-hp engine and with clipped wings is especially adapted as a low-level fighter and fighter-bomber. These three British ships are also in the 400-mph class.

Medium and Light Bombers—Since last August the Martin Marauder, now operating with the Ninth Air Force, have established a record for low losses and effective operations from low-medium altitude (10,000 to 12,000 feet), with lighter escort, largely Spitfires. The new model with twelve 58 caliber machine guns packs a deadly punch. A recent addition to the Ninth Air Force striking power is the new model of the Douglas Havoc, one of this war's most popular and versatile light bombers, having been used in England since 1941 as the Boston day-bomber, and as a night fighter, in North Africa by RAF and AAF; in Russia with great appreciation by the Red Air Force; and in New Guinea as one of the successful gunner pigs in maximum

altitude bombing against both shipping and land targets. The new version has a bomb load of four 50's, two more 50's in front fuselage (one each side), two more in a new top turret, and one flexible turreted gun beneath the fuselage—five high-velocity hard hitting 50's in all. Speed is about 320 mph, and a sweet ship to fly.

The British entry in this class is the fast and versatile Mosquito—light bomber, fighter, night fighter, and long-range reconnaissance ship. Maintaining the Marauders of the Ninth, the RAF has a number of Mosquitos, the "swind-the-world" medium bomber par excellence. The American aircraft operates under General Breivart, C.G. of the Ninth, and the British under Air Marshal Cunningham, commander of the Second Tactical Air Force (set in Italy, 3d in India). Both units to form the Allied Expeditionary Air Force under Air Marshal Leigh-Mallory, General Spaatz's tactical air chief, his deputy, Air Chief Marshal Todder, is one of the world's outstanding air tacticians. Taken altogether, it appears as if our world has a chance to do its job.

NAVY/AFS

Gen. Vandenburg Succeeds Butler

Pre-invasion shifts in the air command in the European theater continue with the appointment of Maj Gen Hoyt S. Vandenburg as deputy commander in chief of the Allied Expeditionary Air Force, succeeding Maj Gen William O. Butler, whose new assignment has not been announced. Headquarters also announced that Brig Gen Myron R. Wood has been appointed director of administrative services for the AAF in the European theater.

Hale Gets New Post In Pacific Theater

Maj Gen Willis H. Hale, commanding general of the 7th Air Force in the Central Pacific, has been given command of the shore-based air force in the forward area of that theater. The post has been created to coordinate operations and logistic support of all shore-based Army, Navy and Marine combat aviation. Admiral Chester W. Nimitz announced.

Caravans of Commerce ON FIRESTONE WINGS



Across the wide expanse of the seven seas, flying on wings built by Firestone, soar the vanguards of a gigantic fleet of places that are as vital to victory as bombers and fighters. These gigantic Curtiss "Commandos", carrying troops, paratroops, air-borne infantry, jeeps, tanks, guns and supplies, are the forerunners of a new and swifter system of peace-time transportation

that will reach to the most remote corners of the world.

Wings for the "Commandos" are only part of a long list of Firestone contributions to the Aircraft Industry. And whether your problem is one of development, design or volume production — whether your requirements are made of rubber, metal or plastic — a Firestone engineering representative is available on request.

Lives in the Pilot's Cockpit with Richard Corley and the Firestone Skyway Orchestra, under the direction of Howard Baber, Firestone's own "Mr. B. C."

Firestone

AIRCRAFT COMPANY



CLIMBING the South Pacific cliffs of U. S. Navy's yellow-bellied rattle for second capture. For seven years, he spent his whole life in the Navy. How many are there? What are they up to? The only way to get the answer is from the air.

On a June day last year a flight of eleven Cessna high-top took off from the South Pacific base. The job of catching vast areas of sea and gun ports, which for years of the only hope for men in the air, was a job that only for constant teamwork. For any thing can happen. And it usually does—when last expected.

Major Ray L. Voss, U. S. M. C., and First Lt. H. S. S. S. C., were in the flight above the clouds. Suddenly the clouds broke. There, 10,000 feet below sea level, they were, not looking for trouble. The flight pattern for the fall. The boys, caught on the spot, duck into the safety of a cloud bank. One lightning Marine has plenty of time to settle with the Nip. 50 miles they press the chase. For the Cessna had moved a disappointing 40.

By now, the unexpected factor that pro-

vided the boys with cover had almost all breaking fields in the lower area. Voss and Soss became separated from the other planes in the fight. Soss's gun was running profusely low. He spotted Major Voss in a cloud bank to make a water landing. Soss's light plane dove to the water off a small island. Soss got out before it sank and reached shore safely in his rubber boat.

Voss had rubbed the base of his companion's platoon. Finally in the mean case in Edgewood, N.Y., Edgewood, one of the latest "merry" ships of the air, which is in (p. 1) W. C. Adams, U. S. N. R. Staff, Adams took his ship to the water, with a crew of two later after his second landing. In Soss was battling back to his base.

But a major can't fly any farther in a gale of gas than a first lieutenant. Major Voss, too, was forced down when his gas ran out. In (p. 1) Grant (Horn), U. S. N. R., flying another Douglas was ordered not to fly over him. In a little more than an hour, he found the Marine Major on an island beach. By then a heavy sea was rolling. Battered, separated his water landing had had to avoid

EDO FLOAT GEAR

DESIGNED FOR UNITED STATES

EDO AIRCRAFT CORPORATION
315 SECOND STREET
CONAQUE, N. Y.



the pending reef. Voss, with no other means of reaching the rescue plane, went through the breakers and was quickly loaded aboard. He, too, was safely back at his base before daylight. End report. "All present."

Engel Life: Those permitting Voss coming plans to land and take off on rough water were less than what they had to do. In the lower, they of something effort which has enabled some of Voss' friends from their after they had been forced down or shot down during flight operations.



PERSONNEL

Howard E. Hartman has joined Chance Vought Aircraft division of United Aircraft Corp. as executive assistant. He has previously served 15 years with the Pratt & Whitney Aircraft Division of United Aircraft Corp. as assistant general manager of the Chance-Vought Corp. in North Meriden.



Has. Reeves, former manager of Dallas American Seaway and a leading figure in southeast aviation, has been named to the new post of airport supervisor for the city of Dallas. In this new post, created by the City Council, Reeves will supervise the planning and development of all future airports in the city's master plan and will supervise their operations as well. Reeves is mapping a national tour with CAA officials and successful representatives in economic development for the city's expansion program.

James F. Red, former deputy chief of the Alby Steel Branch of the War Production Board, has been named production manager of the Tulsa Roller Bearing Co., Tulsa, Okla. Before joining the government, he was production manager of the Steel and Tube Division of Tinsley.

F. R. Pennington has been named traffic representative of American Airlines at Toronto. For the past two years he has been serving with the RCAF Transport Command. Previously he was with Colonial Airways, Ltd., Montreal. He joined American in 1941. W. Morris Brown is traffic manager for American at Montreal, having transferred from the Toronto office, where he has been



traffic representative since 1941. He formerly was manager of Canadian Colonial Airways, Ltd.

Donna Wright, aviation leader and one of the original members of the Aeromarine Chamber of Commerce when the national group was organized in 1940, has been elected to honorary life membership in the Chamber.

Lieut. Col. George F. Birt has reported for duty as the personnel section, Aviation Division, Marine Corps headquarters.

R. E. Hensley has been appointed chief industrial engineer of the New Division of Consolidated Vultee Aircraft Corp. He formerly was in the industrial engineering department at San Diego and has been on the engineering staff since 1941.

Miss Melba has joined TACA Airways Agency, Inc., as traffic representative for the New York office. She was formerly Mexico's consul-general in the Republic of Panama and prior to that was manager of the Inland Transportes Aereos Mexicanos in Mexico and the United States.



Ar. Melba has been awarded to five members of a Northern African crew for making a perilous rescue mission in the Arctic region while flying for the Air Transport Command. Those decorated were: Capt. Arch V. R. Webb, Capt. Francis B. Chalkley, Capt. Joseph L. Lister, Jr., and William A. Pascoe. The



Bove

Joseph M. Bove, assistant general manager of the Chance Vought Aircraft Division of United Aircraft Corp., has been named manager of the export department of the corporation and has relinquished his post at Chance Vought. Bove joined Chance Vought Aircraft in 1934 and has served in many capacities since that time. Last winter he made a two-month tour of South and Central America studying the aircraft situation in the various countries.

Ar. Melba has been awarded to five members of a Northern African crew for making a perilous rescue mission in the Arctic region while flying for the Air Transport Command. Those decorated were: Capt. Arch V. R. Webb, Capt. Francis B. Chalkley, Capt. Joseph L. Lister, Jr., and William A. Pascoe. The



VOUGHT OFFICIALS HOST TO NAVY PILOT:

When Lieut. Commander John T. Blackburn (second from left) Commanding Officer of the Navy Carrier squadron, the "Jolly Rogers," visited Chance Vought Aircraft in Stratford, Conn., he toured the plant with, left to right, Bruce T. Gaynor, chief experimental test pilot, Rex B. Bove, general manager and Lyman A. Ballard, Jr., chief of test flight. Blackburn's outfit used Corsairs to shoot down 156 Jap planes in 79 days in the Southwest Pacific.

new made a 13,000-mile Arctic flight around the magazine pole to bring out a new government weather observer and to carry badly needed supplies to distant regions.

James F. Mitchell has resigned as director of Army Service Forces Industrial Personnel Division and will return to Western Electric Co. He is being replaced by W. A. Hughes, general manager of Indiana Bell Telephone Co. Mitchell before joining ASF, served in engineering the Tinsling-Wilson-Industry program.

Ed White has been promoted to the post of assistant production manager of the production control division at Kellogg Aircraft Corp.

James H. Marks has been appointed executive vice-president of Packard



Marks

Motor Car Co. Detroit branches of Holt-Royer aircraft engine. Marks was formerly in charge of Packard's war production division and recently was named chairman of the contract termination committee for the Automotive Council for War Production.

Richard G. King has been appointed assistant to the president of Flycatcher Aviation Corp., following resignation of Carl W. Etkin who has rejoined Eastern Air Lines as a copilot. King was formerly with Rudolph Walitzer Co., Chicago, and has been engaged in the company's sub-contract division, principally at the DeKalb, Ill., plant, concentrating on a Navy aircraft contract.

Col. William R. Dwyer, second in command of the Western Procurement District, AAF Material Command, has been promoted to full colonel, according to Rep. Gen. Donald P. Swan. Col. Dwyer is rated a senior pilot and was at one time in command of the Colorado National Guard Air Corps. He has been assistant production and inspection officer of the GFE depot at San Pablo, assistant industrial and production executive at Los Angeles



LOCKHEED CONSULTANT:

A. M. Mogensen, nationally prominent work simplification expert and special consultant to Lockheed Aircraft Corp., is pictured as he left for battle group under special assignment for the War Department. Lockheed is publishing war booklets on their work simplification program, guided by Mogensen, who expects to return to the factory on completion of his military assignment.

Nathan C. Pessen, director of inspection in Fairchild Aircraft division of Fairchild Engine and Aircraft Corp., was elected a director at the Industrial Recreation Association at the annual conference in Chicago.



WINS IDEA AWARD:

William Zeltz, supervisor at United Air Lines' Chicago coordination center, was presented with a \$500 War Bond by W. A. Patterson, president, as the result of a valuable suggestion submitted to DALL's Suggestion Conference. The suggestion, of a confidential military nature, saved 20,000 man-hours of work annually.

R. C. Wright has been appointed assistant treasurer of United Air Lines. Detail has latest promotion, he was assistant of business manager and has been with United and its predecessor companies since 1926. Wright is a veteran of air transportation in the country.

S. V. Hall has been assigned to full-time management of United Air Lines military operations for the Army Air Transport Command across the Pacific and to Alaska. Meanwhile, G. C. Robinson will serve as regional manager of western operations for United. Hall will be headquartered at San Francisco. Hall, regional vice-president of United, headquarters has devoted his attention to supervision of both the company's commercial operations west of Denver and its military operations in the Pacific. Robinson has been his assistant.



ELECTED TO RAS:

Dr. Stephen J. Zand, director of the Tate Memorial High Altitude Laboratory of Sperry Gyroscope Co., at Great Neck, L. I., has been elected a Fellow of the Aeronautical Society. He is the Western American to be honored by the Society, the oldest aeronautical organization in the world. Before joining Sperry in 1932, Dr. Zand was with Curtiss-Wright Corp., Buffalo, and Ford Motor Co. (Aero Division). Dr. Zand is a Wright Brothers aviator, a fellow of the Institute of Aeronautical Sciences and a former vice-president of the Society of Automotive Engineers.



MOVES 7 TONS OF CARGO 215 miles an hour

Here is an airplane designed and engineered solely for transport service. The size of its doors, the capacity of its hold, its ability to fly loads of varying weight and bulk all point to freight-carrying efficiency.

Today, under war's abnormal flight conditions, it has proved its dependability and economy.

This is the Curtiss Commando's postwar promise! On moderate length runs, it will move 7 tons of cargo

215 miles an hour—at an estimated shipper's cost that is only slightly more than fastest surface transportation rates—and way below existing air express charges.

One Victor relates the Commando to its noteworthy contribution to the movement and supply of our armies, its destiny as a cargo and passenger transport in peacetime. LOOK TO THE SKY, AMERICA! Curtiss-Wright Corporation, Airplane Division, Buffalo, Columbia, St. Louis, Louisville.



Last 10 seconds of a 1000 mile flight

No time in the flight of a huge transport plane is more important than the seconds-short landing period.

Aerols's biggest planes are equipped with Aerols® to reduce landing shock and provide protection to planes, crew and cargo. Intended when aviation was still in its infancy, Aerols are contributing substantially to aviation's progress—as planes grow in size, weight and speed, Aerols solve the landing problem for these aerial leviathans.

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AIRCRAFT DIVISION • CLEVELAND 3, OHIO

Also manufacturers of
Chapman's tools, the Aerols shock absorbers and
Cleveland shock drills for mining and construction.



AEROLS
THE PNEUMATIC HYDRAULIC AIR-OIL SHOCK
ABSORBERS ON AIRCRAFT LANDING GEAR

AIRCRAFT PRODUCTION

World Airworthiness Standards Discussed at St. Louis, London Talks

Warner of CAB stresses need for international agreement from standpoint of private plane manufacture as well as safety in air commerce.

By SCOTT HERSHEY

Problems of international airworthiness requirements are receiving increasing attention in the aviation industry which generally sees decided advantages in the setting up of standards, although viewpoints on the course to be followed are widely varied.

The question came up for considerable discussion at the recent meeting of the Airworthiness Requirements Committee of the International Chamber of Commerce in St. Louis and the subject also was discussed in the informal sessions of the London exploratory talks.

Standards — The advantages of international agreement are obvious from the safety standpoint, but the trend of thinking in the industry is also on the importance of standards which would permit air commerce to move more freely between countries and, in addition, to widen the market from the industry standpoint of aircraft engines, prime materials and accessories, regardless of the country of their manufacture. The importance of such standards from a maintenance viewpoint should not be overlooked and the establishment of certain standards and categories would diminish the possibility of understating work without equipment.

Such experts as Edward P. Warner, vice-chairman of the Civil Aeronautics Board, feel that problems of international airworthiness requirements had received too little attention in the past and he is hopeful that further discussions among aircraft manufacturers will be undertaken with a full development of all viewpoints on the matter.

Options Differ — Warner disagreed but gave views on the ques-

tion of the Chamber's Airworthiness Requirements meeting in St. Louis, which was attended by top engineers of 25 leading aircraft manufacturers.

It is conceded that there is considerable difference of opinion among aircraft industry leaders as to the question of international agreements regarding airworthiness requirements, some holding the view that there should be no attempt at international agreement whatsoever.

This view is based on the opinion that American manufacturers

can produce superior airplanes and that cheap labor in some other countries might mitigate against our domestic industry.

Agreement — Others feel that there should be agreement to at least a degree in possible, with no attempt to make agreements binding. Under this proposal, each country would maintain its own set of requirements, but an international reviewing board might be established to study disparities between the various requirements and make recommendations for a closer agreement. This proposal, in the opinion of Warner and others, appears most feasible at the moment.

Still another possibility would be complete international agreement which would require a treaty of some sort which would give to a permanent international airworthiness requirements board complete and final authority to make decisions binding on the signatories. A modification of this plan has been suggested in which decisions of the international board would be subject to ratification by the individual countries.

British Optimistic — The British are said to be quite optimistic about the feasibility of reaching international agreement on airworthiness requirements, but this optimism is not fully shared by Warner, in view of the difficulty and time delay that undoubtedly would be involved in moving out differences of the participants.

Warner told the Chamber's Airworthiness Requirements Committee that his doubts grew in large part out of the present practice of consulting the industry and other interested parties fully and repeatedly before any change was made in American airworthiness requirements.

Enges Binding Accord — He said he believed full international standardization was a desirable objective, but that it could be obtained only if a binding group of representatives of each nation were authorized to go into conference and arrive at decisions which would be binding on all parties. Warner expressed doubt that such a proposal would receive the general approval of American industry and suggested that industry views on the matter be fully developed.

Warner also suggested that industry go into the question of a committee to be taken with respect to international agreements for the

Post-War Jobs

A survey of some 50,000 aircraft workers in the Wichita, Kan., area, designed to ascertain the nature of the city's employment problem during the immediate post-war period, disclosed that about 50 percent of these questioned want some type of luxury or shop work after the war.

Seventy percent of these questioned want to go into business for themselves and the rest want other kinds of employment or plan to retire. Considered especially significant was the number of women who want to remain in factory work after the war. Thirty-five percent want to return to their homes, 24 percent want other jobs and the rest have miscellaneous other plans. Sixty-two percent of these questioned want to remain in Wichita after the war and 31 percent said they would stay in the city for the duration.

mutual recognition of certificates of airworthiness.

Reciprocal Certificates—If complete uniformity of airworthiness requirements were attained, the various nations obviously would accept as another's certificates and, afloat, could move freely from one country to another.

If, on the other hand, as seemed to Warner more likely, there continued to be difference among the national standards, the various nations might either agree to accept standards of the other as being adequate to the extent that private aircraft certificated as airworthy by one nation, under its own standards, would automatically be accepted as suitable for certification in other countries concerned, or it might be required that any aircraft to be exported should be checked for its ability to meet the standards of the country into which it was to be shipped or flown.

Objections—He pointed out that, although there would be obvious objections to allowing the sale in the United States of aircraft which did not fully comply with our airworthiness requirements, these objections might be offset by the advantages of allowing a reasonable freedom of international trade in private aircraft.

Warner urged that the industry give these proposals consideration and make their views known.

Naval Flyers Given Liberator Training

Former primary base at Hushikawa, Korea, to be used for instruction.

Training of Naval aviators and air crewmen in multi-place, multi-engine Liberators was begun last week at the Naval Air Station, Hushikawa, Korea.

This station was used formerly for primary training but, due to the expansion of the Navy's program for land-based Liberators, it was necessary to provide complete facilities for an all-inclusive training program of the pilots and air crewmen who comprise the combat team.

Course Training—Naval aviators go to Hushikawa for combat training after completing the Navy course in pre-flight, primary flight and intermediate flight training. Command William C. King is com-

manding officer of the station and the training officer is Commander Douglas L. Mosher. Prior to his present tour of active duty in the Navy, he was a senior pilot of Transcontinental and Western Air Lines and had a leading role in that company's four-engine Stratoliner program.

Materiel Command Revises Inspections

Gen. Branshaw emphasizes close search for safety devices in plane design and construction.

By ALEXANDER MCQUEEN

Reorganization of the inspection division of AAF Materiel Command, which will affect inspection requirements and procedures in every war plant producing aviation war materiel in the country, has been announced at Materiel Command headquarters, Wright Field.

Major Gen. Charles E. Branshaw, commanding general, said the re-organization was part of the command's continuing policy to provide planes and equipment with the highest possible margin of safety to the American aviator who uses them.

Safety Factors Strengthened—"Life may be cheap in the Japanese," he said, "but to us the safety of our men is of primary importance. Materiel Command experts are constantly striving to increase safety factors of all Air Force equipment from penicillins to superbombers. We want to get our airmen to the

goal areas as swiftly and efficiently as possible but we also want to get them back. A plane can be built within a few days now—it takes 30 years to grow a pilot or gunner."

Coincidental with the reorganization, General Branshaw announced that a company's four-engine Stratoliner program.

Authority Clarified—Major purpose of the reorganization, it is explained, has been to define more clearly the authority of inspectors in the field in an effort to eliminate uncertainties and interferences which may tend to cause delays.

With this in mind, many long outstanding directives and specifications have been reviewed and rewritten. Materials review procedures have been reworked and clarified, and allowable limits have been more precisely defined.

Coordination—Besides the revision of procedures, the reorganization seeks to maintain a closer coordination between division headquarters at Wright Field, and the thousands of governmental and contractor inspection representatives in various warplants, for a clearer understanding of overall inspection policies by the men in the field.

To supervise the reorganization, the Materiel Command called on Brig. Gen. Ray G. Harris, supervisor of the Midwestern Procurement district at Wichita and a recognized authority on procurement policies and inspection work. Beginning in February, General Harris has been working to reformulate policies and establish closer coordination between headquarters and field inspectors. Now the reorganization has been completed and General Harris has returned to his Wichita assignment, leaving Colonel Baustner in charge of the reorganized division.

West Point Graduate—A graduate of West Point in 1926, Colonel Baustner has served at Wheeler Field, Maxwell, Brooks and Kelly Fields in Texas, Selfridge Field, Michigan, and Randolph AFB, before coming to Wright Field in 1938, to attend the Air Corps Engineering school.

In 1939, he and another pilot set a world's speed record for amphibious planes. He has been assigned in professional aviation work at the command and is probably best known for his direction of the modification center system when it was first set up early in the war.

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...IT'S ALL
ALUMINUM

Boeing Dedicates Air Laboratory With 700-mph. Wind Tunnel

New unit, fastest in U. S., with sections more than two feet in diameter, is being ground for airplanes of future.

A 455-foot aerodynamic "test tube" capable of generating super-laminar approaching the speed of sound, in which will be born many airplanes of the future, has been dedicated by Boeing Aircraft Co. at Seattle and named the Edmund T. Allen Memorial Aerodynamic Laboratory in honor of the famous Boeing test pilot and engineer who lost his life last year in an airplane test accident.

Boeing engineers say the new Boeing experimental laboratory can produce wind in the 500-miles-an-hour range, and that it is the fastest of any wind tunnel in the country with test sections more than two feet in diameter.

Complete Unit.—The new tunnel is a self-contained research unit, complete with model design and construction facilities and computing laboratories as well as actual testing quarters.

Wellwood E. Beall, Boeing vice-president in charge of engineering, discussed the aviation developments which promise to come as the result of wind tunnel experimentation and 144 the audience at the dedication that the speed of

sound is the barrier which confronts aviation engineers today in their quest for greater speeds for aircraft.

Speed of Sound Barrier.—"Until we can solve the riddle of this mysterious barrier," Beall said, "the tantalizing possibility of such developments as jet propulsion is so far as speed is concerned, will be governed by and limited to the speed of sound. We need to conduct an indefatigable amount of research at speeds approaching the speed of sound to find the answer."

The dedicated ceremonies were marked by the posthumous award of the Guggenheim Medal for 1943 to Mr. Allen. The presentation was made to Mr. Allen's widow, Mrs. Florence Allen, by Philip G. Johnson, Boeing president, on behalf of the Daniel Guggenheim Medal Board of Award.

Yield to Allen-Johnson.—"Eddie Allen has been rightfully described as the greatest test pilot of all time."

Yield to Li-Pao Model.—The tunnel was officially placed in operation by Mrs. Allen following the

award. Model planes, with wingspans up to 11 feet, or full-scale airplane sections of the same maximum size, can be tested. All tunnel controls are centralized in the panel board before the test section at the same place where model observations are made.

The tunnel's flow of air is created by a propeller-like fan 24 feet in diameter. The fan consists of 18 laminated square blades. It is mounted on the end of a 37-foot solid steel drive shaft, 12 inches in diameter, which connects the fan with the motor and clutch.

Electric Motor Used.—The synchronous electric motor, built by Westinghouse, has a rating of 58,000 hp. and maintains a constant speed of 514 revolutions per minute. The speed of the fan is regulated by a magnetic coupling or clutch, several times larger than any previously built, installed between the motor and the fan. This coupling, built by the Dynamic Corp., operates on a magnetic principle and regulates precisely the speed of the fan so that airplane models or parts can be subject to exact wind conditions.

Two revolving metal rings, with no mechanical connection, are inside this coupling, the ring on the motor side being magnetized so that when it turns, it pulls the other ring around in the same direction, thus transmitting power from the motor to the fan shaft through air.

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Let X represent the weight of conventional heavy copper or cast iron and coolant radiators. Then $\frac{2}{3}X$ is the pressure in ring at weight effected in each of two aluminum lightening plates by the use of Clifford Feather Weight aluminum alloy coolant and coolant radiators. One plate is actually 50 lbs. lighter in the case of the cases there is a total potential weight saving of 50 lbs.

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possible by Clifford's history making discovery of the long-sought method of joining aluminum in very thin sections—a discovery that permits complete interchangeability—same size and shape—of heavy weight copper and Feather weight aluminum alloy in air craft of coolant and coolant radiators.

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Industry's first hydraulic
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Boeing Laboratory Named for Edmund T. Allen. A model Flying Fortress is shown being tested in the high speed wind tunnel dedicated by Boeing to a major section of the new Edmund T. Allen Memorial



Aerodynamic Laboratory. Photo at right looks down the long built section of the tunnel in which high-speed velocities up to 700-mph. can now be attained to check reactions of heavy aircraft and equipment.

Want to move 35 Tons?

What would it tell you how fast America's fighting planes fly. That's a military secret.

But we'll tell you it will move 300 miles an hour. We'll tell you how they hit 700 or 800 miles an hour in a dive. And how fast was pushed by the air pressure.

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Look for such mechanisms as you see in the picture.

They are called Lear Actuators.

They are powerful. Some can push up to 75,000 pounds.

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Every time an enemy plane or ship is hit, we must know it. We must know it before the enemy can hit us. We must know it before the enemy can hit us.

So the day is coming when they will have different jobs to do. New jobs on pressure products—perhaps the moving parts, or packing oils, or things we never thought of.

That's one reason for this advertisement. We want to know who can use an actuator or a motor like these.

Let's move it, we want you to know that there is no limit to the kind of thinking and engineering which have produced these and over 250 other Lear products.

**LEAR
AVIA
INC.**

FLUVA - OHIO

From this small motor weighing but 3.5 pounds can move 1200 pounds.

► **Registers Tests Made**—The tunnel was built by the Austin Co. on Boeing specifications. An intricate Boeing-designed system of balances capable of measuring, with great accuracy, lifts from one-tenth of a pound up to 8,000 pounds and records all the forces acting on the model being tested, such as lift, drag, yaw, pitch, roll and side force. An ingenious automatic printer will record and print on a tape all the forces acting on the model.

The tunnel here is a complete, self-contained structure which houses an approximately rectangular course 450 feet in length. It varies in size from eight feet by 12 feet in the throat or test section to 27½ by 27½ feet at the largest part.

► **458-Ton Circuits**—When operated at high speed, the air completes the 458-foot circuit in less than two seconds. Inasmuch as 11 percent of the air in the wind tunnel is expelled and replaced with fresh air at every round trip for cooling purposes, under high-speed operation the air in the tunnel is completely replaced with fresh air three times per minute.

An aerodynamics laboratory adjoins the wind tunnel, with a reception lobby and model building shops on the first floor and engineering offices and tunnel operations on the second, an arrangement which permits engineers to design, build and test models in the same building.

Coast Guard Tests Navy Helicopters

Expected to have 22 in service by June 30 and 186 in about a year, Waseke reports.

Coast Guard is doing all the experimenting on helicopters for the Navy, expects to have 22 in service by June 30 and 186 by June, 1945, testimony of Vice Admiral R. B. Waseke, in connection with the Navy Department appropriation bill has revealed.

None of the helicopters has been put into active service, and the "four or five" completed are being used exclusively for training.

► **British Pilots Trained**—Admiral Waseke and six pilots have been trained and now are serving as instructors. He revealed that "something like 80 or 90 British pilots are in training now."

The Coast Guard Commandant termed helicopter developments very promising, saying that for "certain search problems, as looking on ship and taking off from ship other than an aircraft carrier, they are practically the only thing in existence right now that will do it."

► **Two Crashes Reported**—Two helicopters have crashed, the admiral revealed, one a Coast Guard ship and another on Army helicopter. The Coast Guard crash was tied to personnel failure, while Waseke said "I think one several months ago was due to the failure

of a machine the Army was flying. As a result, all helicopters were grounded until the trouble was discovered." He did not reveal the cause of the crash.

The bug difficulty with helicopters, Admiral Waseke testified, lies in the low lifting level factor. Experts, he said, believe there is a "certain limit" which they will reach whereby, at the present, they do not see their way clear to go further in the way of the lifting load.

Ford P & W Motor Output Up 45%

A 45-percent increase in production of Pratt & Whitney R-2800-B aircraft engines during the last three months is reported by Ford Motor Co., which attributed the gain to perfection of manufacturing methods.

Details of methods in engine manufacture were not disclosed, but the company did report a changeover in airplane parts fabrication, which reverses riveting processes.

► **Eliminating Time Saved**—Two years are completed and 250 rivets required in a single operation under that method. Ford reported that total time consumed by the press for plating the rivets, riveting and tacking is 18 minutes, or five minutes for each spar as compared with 25 minutes per spar for hand riveting.

NEMA Organizes Aircraft Council

Already Electrical Council, subdivision of the National Electrical Manufacturers Association, has been formed with a membership of approximately 30 NEMA companies.

The council is designed to provide a more effective contact between the aircraft and electrical manufacturing industries. NEMA officials said it is planned to provide aircraft producers with experience and facilities of electrical manufacturers and to provide member companies with performance and production requirements of electrical equipment for aircraft applications and to develop aircraft specifications. Offices will be maintained at NEMA headquarters, 155 East 44th Street, New York City.



WARWICK IN RAF TRANSPORT SERVICE:

The Royal Air Force is using the Warwick in many war theaters, as passenger and freight carrier and other capacities. The ship is a medium monoplane, with two Pratt and Whitney Double Wasp Engines.

Prospective Return of 24 Planes Brings up Negotiation Problem

Formula must be worked out to account for depreciation, repairs and conversion costs, spare parts and other factors.

By MURKIN MICKEL

Negotiations are in progress to determine how 24 planes are to be distributed among the airlines as their expected return from the Army late this month and in June. The determination is complicated by the fact that these ships, far the most part modified DC-3s with the Army designation of C-49 or C-43, were not listed but were purchased outright by the War Department from the airlines soon after the war began.

Formula Sought—This means that a formula must be worked out to account for depreciation, cost of repair and conversion, spare parts and other factors. In consideration of individual conditions, the formula must be applied to each plane.

Interest has not only in the fact that the formula may provide a starting point for the program interested in disposal of surplus planes after the war, but may be applicable to further sales of planes to the airlines during the war.

Others May Be Released—There is little doubt that other planes may be made available to the air-

lines from the original take-over. These are of the so-called "minor types," such as Boeing 347-3s and Lockheed (10-A) Electras. The Army acquired 25 of the former and 18 of the latter, but some of the Boeings have been sold by the Army to South American lines.

Now many of the remainder may go back to the lines but not been decided, but reports are that it will be a substantial number. Furthermore, their return may precede or coincide with that of the modified DC-3s. Certainly it will not require much more time than the contemplated turnback of the latter.

There is some doubt whether such minor types of craft as the Electras and 347s will go back to regular scheduled service, but they may be suitable, it was pointed out, for pilot training or other auxiliary services.

Return of the C-49s and C-43s, some sources say, virtually "clears out" planes of this type acquired by the War Department from the airlines, except for those in contract operation. Others so identified and commercially were put in Army

use as they came off the assembly line.

Original plans were that 27 planes should be made available for domestic use in the current return. This later was cut, however, to 24. More than 150 were taken by the Army originally, leaving more than 60 airline planes still in Army service.

Availability Problem—Much as the airline desire more planes, there are many questions where these are concerned that have not arisen previously. The availability of parts is one of the most serious.

In the more distant future lies the question whether C-47s, cargo derivatives of the DC-3, will become available, and whether the airlines will welcome their return, considering the reversionary they will entail. Here, as elsewhere, lack of parts and availability of equipment to make the change-over to passenger use will have a bearing.

Plan complement presents a problem as the required planes, but the airlines do not feel that it is insurmountable. Usually such ship turned back means an additional four pilots and equal number of co-pilots if it is to be placed in scheduled operation.

Ever Increase Likelihood—Major benefit from the addition to the airlines' equipment is anticipated through increased air mail service. More than half the mail sent by air in recent months has been delayed or shifted to train because of lack of planes.

No marked effect is looked for so far as civilian non-priority passengers are concerned, since the military backlog and others with priorities may be expected to speak rapidly for any additional making space that becomes available.



SMALL PACKAGE AIR CARGO CONTAINER

This container has been designed by the aircraft division of Dress Products Co., Detroit, as an answer to the problem of handling air cargo in small packages (flying against the plane ceiling is flippant, the container is unfastened on one side and draped for loading or unloading).

It weighs 4½ pounds, and carries an ultimate load of 1,400 pounds. The company says tests by United Air Lines and Transcontinental & Western Air indicate the container is a satisfactory innovation.

Paper Priority Ruling Hailed by Airlines

Move seen as WPB recognition of need for preferential service is well in procedure in most.

A War Production Board order granting a priority applicable to paper cups and food containers for airline passengers brought grateful comment from some of the airlines.

Pan American and American were among those who found in WPB's action recognition of the importance of essential travel, appreciable in view of a paper cup shortage caused by Army, Navy and War plant demands.

Priorities — Pennsylvania-Central, which resumed serving food to its passengers early last month, after dropping the custom as a war measure, commented that since a large proportion of airline passengers are traveling on priorities, it is fitting that these should be granted on their containers.

Particular interest in the order was expressed by Howard Baumgardner, American's supervisor of food service. American reports it tabulated 78,896 passengers during 1945, thereby discounting that for the month consecutive prior it usually carried more passengers than any other airline. In its first year of record, American's passengers numbered 776,685.

PCA Uses Fiber Tray—PCA estimates that the meals it serves will

run about \$300 a month. Originally intending to use a cardboard tray and lid, it has turned instead to a fiber tray and lid with cardboard insert. The line's food officials say that, while initial cost of the fiber tray is much higher than a cardboard tray, it is expected to be less expensive in the long run, because it can be washed and used repeatedly, while the tray of the other type would be thrown away after each use.

They asserted that PCA, like some of the other airlines, feels that food tastes better to the passenger when eaten from china. Pennsylvania-Central and United, for instance, use a china service, and the latter reportedly is planning to use china cups. American uses some plastic plates.

Pan American employs different services, but uses paper extensively for convenience and sanitation reasons.

Stanton to Address Southwest Air Forum

Aviation problems to be discussed at Oklahoma City meeting May 26.

Charles I. Stanton, CAA administrator, will be the principal speaker at the one-day Southwest Civil Aviation Forum to be held Friday, May 26, at the Sheraton Hotel in Oklahoma City.

Attendance is expected from Arkansas, Colorado, Kansas, Louisiana, Missouri, New Mexico, Texas and Oklahoma, representing municipalities, airport managers, airline operators and applicants, CAP officials, and state aviation officials.

Aviation Forum—The meeting is designed as an informal discussion of the Southwest's aviation problems.

Persons attending are invited to send in questions in advance. The meeting will open at 10 a.m. with a discussion of questions sent in. Administrator Stanton will speak at a luncheon, and another discussion session will be held from 2 to 4 p.m.



RAILWAY EXPRESS MEN DISCUSS AIR OUTLOOK

Executives and operating officials of Railway Express Agency met in New York to confer on plans. Those shown, left to right, P. H. Cummings, air freight executive; M. G. Lucking, F. L. Reed, V. M. Grunley, air express manager; C. E. Graham, vice-president, A.

L. Russell, vice-president and chairman; J. M. Shanley, executive representative; C. A. Frey, freight vice-president; K. H. Merritt, general manager, public relations; C. G. Petersen, chief engineer; and R. W. Sterling, air express manager.

Pogue Sees Post-War Reduction In Air Cargo Cost to 5c a Ton-Mile

CAB chairman, on visit to Southern California airframe plants, predicts cut to 15c rate immediately after termination of conflict.

By SCHÖLER BANGS

Lowering of air cargo costs to 5 cents per ton-mile within five years after the war ends will leave J. Welch Pogue, Civil Aeronautics Board chairman, "not at all concerned."

He made the observation during his recent two-day visit to Southern California airframe plants, and said it was based on what he had seen in factory preparations for post-war air commerce.

Urges Reduction—Cargo costs should be lowered to 15 cents per ton-mile immediately after the war, a rate that will enable transport operators to become definite competitors for large amounts of shipping.

Pogue at the moment is not a "super" airframe enthusiast, and he said in Los Angeles he believes the transport business will gain

strength through small plants and frequent schedules rather than by use of massive equipment.

Guiding Policy—He spoke of a "wise policy" needed to be a guide for the nation's aviation future, a policy he feels should make it possible for factories to continue developmental work in the post-war era, after an acceptable solution to problems of surplus, continue development of military aircraft, expansion of a strong foreign policy that will treat on "right of transit" for American international air commerce.

ROUTE APPLICATIONS—More than 3,000 miles from his home base, the CAB chief was inclined toward optimism in looking ahead at the Board's task of reviewing 800 domestic and 100 foreign route applications, the domestic applica-



SERVICE STRIPES

Model idea is the use of service stripes by Pennsylvania-Central Airlines on ships returned by the Army. PCA feels that planes which have contributed to the war effort are entitled to special recognition.

tions alone involving proposals for 800,000 route miles in contrast with the 200,000 route miles now held by the rail industry.

He thinks the Board will be able to work through the voluminous applications, complete hearings, and hand down decisions on all applications in from two to three years.

REPORT ON OFFING—A factor in speeding board action will be the issuance, within another six to eight weeks, of a CAB route applications "policy" report that should determine Board attitude on many questions common to many applications.

It is his "personal speculation" that when hearings are completed the United States may find itself in possession of 200,000 route miles of airways—but only if Congress sees fit to adopt a liberal essential attitude toward supporting "local" air transport operations.

MCCARRAN BILL—Should the McCarran bill be adopted and effort a closer integration of the Civil Aeronautics Administration and Civil Aeronautics Board, Pogue will be a prime candidate to run the show. He will have the personal blessing of the bill's author, Senator Kai McCarran.

At the Arnold celebration in Las Vegas, Nevada, Senator McCarran, speaking on his proposed legisla-

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FORKLIFT TRUCK LOADS LEXINGTON EXPRESS

While it's on your daily news, this battery-powered Clark electric forklift truck is typical of the loading devices being utilized by airline executives who are thinking about future cargo operations. Here one of a fleet is loading a C-47 Lexington Express transport at Convairfield Vultee's Fort Worth plant.



BLASTING OFF THE BARNACLES WITH 40,000 VOLTS

To protect Gammatrons against filament bombardment, one of the most common causes of untimely tube failure, Heintz and Kaufman Ltd. employs an exhaust process so rugged that only tubes made with vacuum elements can survive it.

"Blasting off the barnacles" occurs just before Gammatrons are sealed off. Already these tubes have been run at 3,000° F. for more than half an hour, and have been exhausted to 1/10,000,000,000 of atmospheric pressure.

A red light flashes, and a warning bell rings at 40,000 volts are applied between grids and plates. A blue-white flicker marks the passing of the last bit of gas.

Before a tube can endure such punishment it must be built like a Gammatron—clean and sturdy, without internal insulation or chemical getter. Then it will take the kind of exhausting that means its staying on the air for thousands of hours.

THE 400-5000 Gammatron is a high voltage, low impedance tube capable of passing large amounts of current. This size and combination of features is made possible by the use of four separate sets of tube elements operating in parallel within one glass envelope. This plane design, 300 watts.

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Gammatron Tubes

too, said: "I can think of no one better qualified to administer it than Welch Page."

PCAA EDUCATION PROGRAM—Commendation for the scope of his support of the CAA's national education program is due El A. Hawk, CAA regional manager, South Region, and his staff at Santa Monica, Calif.

He has just completed, at Salt Lake City, the fourth of a series of training meetings for high school teachers who, in many cases, are charged with giving their students pre-flight classroom training, but who have never been in an airplane.

Hawk sees to it that, during training meetings, the teachers, seated in groups of 100, get rides in CAA planes, witness air traffic control in the air as well as in the flight tower and leave convinced that they can equip their students with basic knowledge for growing up in an air age.

Crash Report Urges Study of Storm Data

Violent downdrafts caused accident near Trumess, Ky., last July, CAB finds

In a report on the crash of an American Airlines DC-3 last July 26 near Trumess, Ky., the Civil Aeronautics Board found that the plane had been caught in a violent downdraft in a thunderstorm, and recommended that more thorough meteorological study be given to such storms in the interests of safer flying.

The Board has discussed with the U. S. Weather Bureau and the National Advisory Committee for Aeronautics the possibility of gathering "more information on the dynamics of thunderstorms and more accurate methods of forecasting severe developments," the report stated.

Flying AM 22—At the time of the crash, the plane was flying American's AM 22 between Louisville and Nashville at night. The investigation revealed that the pilot probably thought he had found a safe path through the storm when the plane was caught in a violent column of descending air and forced from an altitude of 2,300 feet to the ground.

Sixteen passengers and four crew members were killed as a result of the crash.

12 Cases Await Final CAB Decision

Four involve mail cases, two Board jurisdiction, two acquisition and four route authorization.

By DANIEL S. WENTZ II

Twelve cases involving 25 pilots and 26 airlines have passed through all the necessary procedural stages and were waiting final adjudication by the Civil Aeronautics Board itself at the month's end. Four of these remained from last year. Eight have been submitted in 1964.

Four mail rate cases, two questions of Board jurisdiction, two questions of approval of acquisition and four route authorization cases comprise those in which decision is pending.

Preliminary Testimony—In such cases the Board often must study thousands of pages of testimony in each docket.

Of the mail rate cases now before the Board, three concern Pan American and the fourth Continental Airlines. Under the Civil Aeronautics Act, the Board is responsible for setting a reasonable rate of compensation for transportation of mail.

Pan American's cases involve trans-Atlantic, trans-Pacific and Alaska mail service. Most of the testimony in the trans-Atlantic cases remains confidential for defense reasons. All three of these cases have been pending since last year. **Jurisdiction**—The Board's jurisdiction has been called into question in a case involving a wage complaint filed by the Air Line Pilots Association against National Airlines.

A similar question of jurisdiction arose in the so-called Peapack Terminal case when the need for a U. S. terminal for the operations of Pan American Grace Airways was argued.

In a case submitted to the Board in March, acquisition of Mayflower Airlines by Northwest Airlines is in question. Economist Frank A. Low, Jr., has recommended that the purchase be approved.

Decision Awaited—Western's acquisition of Inland Air Lines, which had the approval of Economists Thomas L. Wrenn and Barton Fredericks, is also waiting decision. The Air Line Pilots Association was an intervenor in this case when the senior rights of Inland's pilots became involved in the transfer. The contract of acquisition failed to insure those rights.



INNOVATIONS IN PCA'S RECONVERTED PLANE:

Pennsylvania-Central Airlines claims several innovations on this ship following its return from duty with the Air Transport Command. Visible in the reconversion to passenger use are the new seats shown in this interior shot. Lighter than seats in other PCA planes, they have a new type reclining mechanism controlled by a lever on each seat instead of the usual button. Less breakage is expected. The seats are manufactured by Warren, Massachusetts Co. Quinco-Corning Fibre-glass is used for curtains. Carpeting is a light-weight type of fabric installed to prevent slipping.

The Board is also called upon to decide whether Hitehosen, Kan., should be added as a stop on Continental's suspended route AM 48 between Denver and Tulsa. TWA and Braniff also had sought to serve Hitehosen, but Examiner Lawrence J. Koster found in favor of Continental.

Interstate Fuel Cases—Other interstate fuel cases include a requested stop by Braniff at Lubbock, Texas, on AM 15 and a stop by American at San Antonio on FAM 24. Examiner Thomas L. Wynn comments that both requests be granted.

Braniff and Eastern objected to the San Antonio stop, asserting that it would have an adverse competitive effect on their traffic. The examiner awarded the stop to American on condition that it be used only on round trips between Mexico City and Ft. Worth-Dallas.

New York-Boston Route—Lastly, the Board is required to render a decision in the complex New York-Boston case, in which the question of who shall compete with American Airlines over that route must be decided. Examiner Wynn has recommended that Northwest be allowed to operate into New York

Oklahoma Airlines \$500,000 Concern

\$100,000 already subscribed by residents of area for which CAB permit has been asked

Oklahoma Airlines, newly organized airline system which will seek CAB approval to serve a trade area of smaller communities around Oklahoma City, has been announced as a \$500,000 corporation with \$100,000 of stock already subscribed by residents of the area to be served.

T. E. Braniff, head of Braniff Airways and regarded as father of the plan, emphasized that he was not interested in operating the company, only incidentally from a financial standpoint. Expressing doubt that the CAB would permit him or any other large company to participate in the new venture, he said he would keep his financial interest of \$25,000 if permitted, and would offer technical aid if possible.

Operate in Oklahoma—The new corporation tentatively plans to operate from virtually all major points in western Oklahoma, with a leg into southeastern Oklahoma

but avoiding conflict with Tulsa's trade area.

Officers named to serve without pay pending CAB action as a trade area to be filed by the new organization are: Fred Jones, president; Clarence Page and W. M. (Bill) Morgan, vice-presidents; Matt Brown, secretary; and Virgil Brown, treasurer.

Applications Filed For 2 Feeder Routes

Two interstate feeder routes, one in California and the other in Colorado, are sought in applications recently filed with the Civil Aeronautics Board.

John H. Engel, who operates a military aircraft paratrooper under the name of Saniel Aircraft, operates in Riverside, California, has filed for a certificate to authorize three feeder routes out of San Diego. He proposes to transport mail, passengers and property in scheduled feeder and pickup service by conventional aircraft and/or helicopters. The applicant does not own any aircraft at present.

Circular Route—The Pueblo Air Service, at Pueblo, Colo., which until recently was a training school under the WPA program, has asked a certificate to authorize a circular route from Pueblo to other cities in southeastern Colorado.

The scheduled service proposed would carry mail, passengers and property. The applicant now owns four 330 hp. four-passenger Waco's which would be used over the requested route.

Airports Discussed At Spokane Meeting

Representatives of 45 communities in Washington, Idaho and Montana met recently at Spokane, Wash., to hear Paul Harris, regional Civil Aeronautics Administration manager at Seattle, urge preparation for a part-time expansion of aviation that may find their municipalities on feeder routes, and give advice on moderate low-cost community airports.

Speakers included Florence Turner, Harvey Hancock of United Air Lines, Bert Zimmerman of Zimmerly Air Transport, and William Sims of Northwest Airlines. The Spokane Chapter of Commerce sponsored the meeting.

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PCA USING NEW CARGO CONVEYER

Pennsylvania-Central Airlines has developed this electrically operated loading conveyor and is testing it at Pittsburgh, Cleveland, Detroit and Washington. Known as the "Cargoconveyer," it consists of an electrically driven belt mounted on a four-wheel chassis. The belt can be retracted for unloading. First experimental model was built by Standard Motor Jetway Co. of St. Paul, Minn. Tests show that loading with the machine is about 50 percent faster than hand loading.



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Canada to Divest Roads of Airlines

Breakup of CPA and original companies forecast in House committee.

So closely will Canada's new Air Transport Board be influenced after the Civil Aeronautics Board that there will be provision for cancelling railways to drop their aviation business.

This means, according to a statement in the House of Commons at Ottawa by C. D. Howe, Minister of Supply and Commerce, that Canadian Pacific Air Lines will be broken up into its striped operating companies.

Under *Domestic Control*, The Air Transport Board, which is soon to be established, will be part of the Civil Aeronautics Board of the Department of Transport, so that the government will be able to keep a hand on aviation policy.

Separation of airlines and railways has a counterpart in CAA's interpretation of the law that effectively has prevented entry by surface carriers into air transport.

Includes Ten Companies—Canadian Pacific Air Lines consists of ten companies purchased by their entirety or in part by Canadian Pacific Railway in recent years, most since the start of the war, although the CPR had an interest in some of them for a decade. A number of the companies were in a precarious financial position when taken over by CPA. Minister Howe said that separate enterprises would be re-established, and assumed that the separate airlines had been bought at reasonable prices and could be separated without loss to anyone.

The companies which make up CPA cover all parts of Canada. Oldest is Canadian Airways, which had operations throughout the northland and along the north shore of the St. Lawrence River. Quebec Airways, operating out of Montreal, operated north of the St. Lawrence River. Dominion Airways operated out of Montreal. Airways operated in northern prairie provinces out of The Pas, Manitoba. Wings Ltd., with headquarters at Winnipeg covered mostly northwestern Ontario and northern Manitoba.

Intercity Service—Prairie Airways operated intercity air service out of Moose Jaw, with some northern flying. Yukon Southern Transport, with headquarters

at Edmonton, operated air service along what is now the Alaska Highway from Vancouver to Dawson, Yukon. Glacier Coast Airways operated out of Vancouver into mining regions of British Columbia. Starline Airways covered a vast territory in northern Ontario out of Sudbury. Lakeshore Air Service operated a route from Edmonton to Alkivik and Capreol, north of the Arctic Circle.

In addition to these firms, CPA took over some air traveling schools and has started others to aid in training airman for the British Commonwealth Air Training Plan. Points to U. S. Policy—Minister Howe said the government had come to an agreement without expanding the railways, to divest the railways of their air services because experience has proved this best.

The government has decided that small operating companies, in addition to the CPA air routes which will be broken up, will be established on an exclusive basis in any area. Moreover, it stated, the government's new Industrial Development Bank, or private business, would be given a route and financial aid.

Panagra Election

Re-elected directors of Pan American-Grace Airways, Inc., include Harold J. Raag, president, Howard D. Best, who was also elected vice-president, W. F. Cogswell, A. G. Gage, H. Preston Morris and R. H. Farley. Henry Ford, Jr. and Edwin Bellamy were elected directors to succeed George L. Ruhl and Ervin E. Young. Bellamy's election is subject to CAB approval.

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Position desired. Position offered an opportunity to work in a field of interest in a well-known or growing organization.

SERVICE THROUGHS

In addition there are general positions in various departments of the company.

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It is possible for an interested person, with little or no experience, to become a successful person in the company.

HAMILTON STANDARD PROPELLERS

Best Hamilton, Connecticut

All things that are in connection with the Hamilton Standard Propeller Co.

SHORTLINES

Allegheny County, Pa., commissioners have approved a \$200,000 bond issue with a view to raising funds for improvements for the Pittsburgh (Downtown) Airport, a \$100,000 project. The bond issue will permit financing of plans and purchase of such additional land as is necessary.

American Airlines has added a daily round trip to its schedules between Los Angeles and Chicago, via Phoenix.

United Air Lines, through addition of a plane leased by the Army, now offers six daily transcontinental flights between New York and San Francisco.

Pat Martin Warner, named by a Pan American Airways crew flying under contract with the United Air Transport Service, has accomplished a rescue in a heavy sea by jacking up 45 survivors of the transport SS Cape San Juan, impounded in the Pacific. The War Shipping Administration reported that 1,316 lives were saved.

National Airlines reports that one of its *Lockheeds* recently set a record of two hours and zero minutes between New Orleans and Jackson, while another *National* plane flew from Austin to Key West and return in an hour and a half, with three minutes for the turn around at Key West.

CAB ACTION

Civil Aeronautics Board has received the report of the Board of Air Commerce, U. S. Civil Aeronautics Board, on the status of the airline industry in the United States. The report states that the industry is in a state of transition, and that the Board is working to bring about a more stable situation.

Warrent, La., and other airlines, have been granted permission to increase the size of their fleets. The Board has also granted permission to increase the size of their fleets.

Kansas City State has filed a motion to be appointed to the Civil Aeronautics Board. The motion states that the applicant is a qualified person to serve on the Board, and that the Board should appoint him to the position.

St. Vincent, British Columbia, has been granted permission to increase the size of its fleet. The Board has also granted permission to increase the size of its fleet.

It is possible for an interested person, with little or no experience, to become a successful person in the company. The company is looking for people who are interested in aviation and who are willing to work hard.

also state that steps have been taken to bring about a more stable situation. The Board has also granted permission to increase the size of their fleets.

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New Survey of Profits Shows Aircrafts Near Bottom of List

National City Bank analysis of 2,625 corporation reports reveals average of 3.6 percent compared with 1.8 percent for aviation manufacturers.

By ROGER WILCO

New survey by one of the world's great financial institutions shows the aircraft group had one of the lowest profit margins among all manufacturers during 1943. This was revealed by a comprehensive survey of corporate earnings as presented in the current bulletin of the National City Bank of New York. Annual reports of 2,625 leading corporations were examined for 1943 and provide a broad background of corporate earnings for American industry. Results for 1943 also are shown.

An average of 3.6 percent was shown as net income after taxes on sales as earned by a group of manufacturers for 1943. This represented a decline from 4.8 percent for 1942.

Best Packing Lanes.—By contrast, a group of 24 aircraft and parts companies showed an average return of 1.8 percent in 1943 and representing a marginal decline from the 3.2 percent reported for 1942. Only one industry—metal packing—had lower profit margins, 1.1 percent in 1943 and 1.5 percent in 1942. Moreover, the leaders have traditionally been known for their low profit margins but have generally experienced substantial profitable operations because of the tremendous volume of business conducted.

It is, nevertheless, significant that the drop in profit margins for 1943 over 1942 was the greatest for the aircrafts—almost 30 percent. This was by far the sharpest decline shown for any of the 26 industrial groups presented in the National City study. Further, the automobile group experienced a far higher degree of profitability than did the aircrafts. The former group showed an average profit margin of 3.2 percent in 1943 and 3.5 percent for 1942.

Assessment.—Profit margins determine the extent of earnings and have long been given prime consideration by investment observers. Their importance is highlighted by the interesting anomalies revealed by the National City survey.

A group of 20 drug and soap companies showed the highest profit margins among the entire list—7.4 percent in 1943. As a result, with total sales of \$641,072,000, net income of \$60,378,580 was reported. By contrast, the aircraft group with sales of \$1,240,979,000, or more than three times that of the soap category, earned but \$19,383,000 or about 1.5 percent less. The explanation can be found in the prevailing difference of profit margins.

Auto Industry.—Similarly, the automobile group showed total sales of \$6,112,350,000 or almost twice that of the aircrafts. Yet, the former was left with net income of \$189,115,000 or more than twice that of the aircraft group. Here again, the answer can be found in the existing profit margins.

As far better showing is made by the aircraft industry in the presentation of net income earned on net worth. This summary also was provided by the National City Bank and reveals the percent return earned on net worth or invested capital.

Average 35.5 Percent.—This time 30 aircraft and parts companies are shown and are reported as earning an average of 35.5 percent on net worth during 1943, virtually unchanged from the 34.9 percent re-

ported during 1942. These results were by far the best revealed among the entire list of 50 industrial groups examined in the National City review. The average for all manufacturing was but 9.9 percent for the two years.

Some interesting contrasts are afforded by other comparative industrial groups for 1943. Automobiles, 13.2 percent; shipbuilding, 25.6 percent; and railway equipment, 9.9 percent.

Large Capital Turnover.—Reason for the superior showing of the aircrafts, in terms of percent return earned on net worth, is primarily due to the fact that the group has operated on a large turnover of capital and has been greatly aided by the substantial extent of facilities financed by the government. As a consequence, the group's own capital investment has been relatively small.

It is interesting to note that the 30 aircraft companies used had an aggregate net worth of \$278,997,000 as of Jan. 1, 1943, and was up from the \$200,000,000 reported a year earlier. On the other hand, 30 automobile companies showed a combined net worth of \$1,692,125,640 at the start of 1943, or about 6 times that of the aircraft group.

Big Transport Earnings.—The air transport group also came in for attention in the survey. Eleven airlines were shown to have earned an average of 26.4 percent on their net worth for 1943, or a slight decline from the 22.4 percent reported for 1942. That compares favorably with other transportation industries. For example, the return earned on net worth for 1943 compares as follows: railroads, 7.6 percent; trucking, 9.8 percent; 9.8 percent; shipping, 13.5 percent; and miscellaneous transportation, 9.2 percent.

Here again, the relatively small invested capital and large turnover of capital pertaining to air transport are responsible for these favorable contrasts. For instance, the railroads have a substantial permanent investment in rights-of-way, roadbeds, station facilities and similar installations. The air transport, on the other hand, requires no such investments in such facilities. In other words, the airlines require relatively less capital to generate a given amount of business than do the railroads.

Capital Position Up.—The two aviation groups, along with Ameri-

can industry as a whole, have steadily augmented their net worth or invested capital positions. This has been due to a policy of retaining a large portion of earnings and their ploughing back into the enterprise involving, on balance, little has strengthened capital structures and is a circumstance that has particularly benefited both the aircraft manufacturers and air carriers.

Navy to Stay Out Of Brewster Vote

Management won't solicit proxy for May 17 meeting. Kaiser still stockholder.

Reaction of officers at the annual meeting, May 17, of Brewster Aeronautical Corp. will be free of any direction from the Navy stockholders who have notified by directors through Henry J. Kaiser. The announcement and that, in consequence, voting trusts holding approximately 25 percent of the company's outstanding stock will permit owners of such shares to vote at the meeting. Kaiser, in his letter to the stockholders, reiterated that it is not the intention of the management to solicit proxies.

Stock Owners.—Owners of the stock held by the voting trust are James Wray, former chairman of the board and former president, and A. J. Miranda, Jr., J. J. Miranda and P. W. Wilson. Other members of the partnership whose contract as exclusive sales agent for Brewster on foreign sales was the subject of litigation.

The voting trust was set up when the Navy took possession of the plants and properties Apr. 20, 1942. It holds 144,620 shares of the 395,361 common outstanding.

New Door Fastener

A new type of quick access fastener, designed specifically for aircraft, is being made by Bramanda Aeronautical, Inc., which says it is of special value on inspection doors and access doors to fuel tanks, and can replace cotter fasteners, lock bolts and other non-Bramanda fasteners in applications that require frequent opening and closing. When closed it has flush, avoiding an air resistance, an advantage that proves in relation to the number of inspection doors on the plane's exposed surfaces.

2 GM Units Expand P&W Motor Program

Chevrolet and Buick divisions assume molding plant.

Expanded program for the production of Pratt & Whitney engines have been disclosed by two General Motors divisions—Chevrolet and Buick.

Coincident with Chevrolet's completion of two years as a prime producer of P & W engines, M. E. Cople, general manager and General Motors vice-president, said his division produced 10 percent of all the aircraft engines manufactured by American industry in 1943.

Output at High Level.—He disclosed that the output in 1943 was at a rate five times that of 1942 and is holding constant at a high-volume level in 1944. In addition, Chevrolet is going into production of the new 2000-C Pratt & Whitney as disclosed by American News last week. Cople and output of the new engine will be superimposed on the present assignment.

A conversion and retooling job that normally would require a year, Cople said, will be completed in seven months in order to produce the new engine at the earliest possible date. This engine already is being produced at Pratt & Whitney's new Kansas City plant. Seventeen plants in Chevrolet's system are allied to P & W production job. Cople said that since engine No. 1 was built by Chevrolet Mar. 1942, the division had turned out 39,000 engines.

Build Tooling.—At the same time, Buick is retreating to make two additional types of Pratt & Whitney engines for Liberator and C-47s. The new engines are high speed two Wages, the R-1830-75 and R-2640-4, of different displacements and developing greater horsepower than current models.

Harlow H. Carlsen, Buick general manager and General Motors vice-president, said two new supply contracts have been signed with the AAF Materiel Command, involving approvals of \$60,000,000 for initial delivery of a specified quantity of both types and added that a manufacturing program has been started involving retooling and machinery procurement to meet proposed schedules.

Schedule Up 22 Percent.—Buick, he said, has delivered 45,000 engines to the AAF and has as-

sumed responsibility for supplying engines for the Liberator production program as well as the 1,500 cubic inch displacement for other purposes, plus the new Douglas transport engines. Schedules for 1944 are 22 percent above 1943 output.

Carl Dolan Buys Essential Industries

Machinery and equipment of Essential Industries Corp. have been purchased by the newly organized Carl Dolan Corp., with offices at 135 Perry St., New York.

Carl Dolan, president of the new corporation, will have in addition P. A. Matthews as vice-president and treasurer, H. M. Resnik, vice-president and secretary, Richard F. Kelly, sales manager, and Robert Demasius, chief engineer.

Tool Products.—The company is one of the largest producers of quality tools, dies, gages, and fixtures for the aircraft industry on the East Coast. Twelve lines of machinery and equipment produce as several hundred dollars worth of tools for companies such as Sperry, Bell, Curtiss-Wright, Eastern Aircraft Division of General Motors, and Goodyear.

Northrop, Packard Lead in Work Ideas

Northrop Aircraft and Packard Motor Car Co. workers are among the leaders in worker suggestions for employee use. The War Relocation Board said last week in revealing that 1,975 ideas have been made to the nation's workers as part of a nationwide production suggestion program.

Packard, makers of the Ball-Royce Bitter engine, was second in the national totals, prospective of worker members, with 105 awards. Northrop employees had received 37 awards.

Willys Output Up

Production of crank-wing sections for the B-24 Liberator has increased 17 percent in the last three months over the preceding quarterly period at the Willys-Overland Motors plant in Toledo, the company announced.

Transport Leadership

UNITED STATES transport planes already are unparalleled anywhere for their speed, technical efficiency and dependability, and economy. Furthermore, the U. S. at this moment probably has more multi-engine transport aircraft than all other countries combined and our production this year is breaking all records.

Next year's program is to be even larger. The four-engine transport production alone in 1945 will be several times the 1944 figure. Nothing like this tremendous schedule is under way or contemplated elsewhere.

Questions are being asked in the U. S. about the British transport production outlook. A consensus of responsible aviation authorities, including a few who have visited England, is that the well publicized projects there, announced from time to time in recent months, have been brought out mainly for the edification of local readers. They are paper planes, in the main, in response to outspoken criticism of the government for failure to have a single modern transport design which could be put into immediate production after the war and compete on even terms with American models.

Because of our present superiority in quality and quantity, this nation will be able to take over commercial airline leadership immediately after the war, restricted only by financial considerations. All of the foreign money in the world, public or private, cannot put together a challenging transport fleet overnight, without American planes.

These facts the Roosevelt administration must know. Its policies on surplus war transport aircraft, international air transportation, peacetime aircraft production, will determine whether we shall tie ourselves down to inferior standards and the restrictions of lesser countries.

Given the right to set its own standards, American free enterprise will never allow us to forfeit the international leadership which can be ours by right of superior production facilities and business acumen.

Military Responsibility

IN ITS PREPARATION for post-war organization of a single department for the armed services, the Army has ignored one of the basic principles of our government.

High ranking officers last week in statements before the Woodruff Committee presented a drastic set-up which, if adopted by Congress, would violate every historic concept of the relationship between the American people and their military services.

The Army, under the plan submitted by Lieut. Gen. Joseph T. McNarney, deputy chief of staff, would relegate the civilian secretary to a minor administrative role and set up a joint chiefs of staff organization reporting and responsible directly to the President as constitutional Commander-in-Chief of the armed forces.

The President would have a chief of staff who would head the Chiefs of Staff Board. Although other witnesses quibbled about the exact chart of organization, McNarney was the ranking military officer testifying and his statement is explicit in its setting up of the chiefs of staff organization in direct control of strategy, budget and allocation of funds and units.

A basic tenet of this government has been responsibility of the Secretaries of War and Navy to the President and people. An Army chief of staff has been adviser to the Secretary of War on professional matters, and the chief of Naval Operations has functioned in similar capacity to the Secretary of the Navy.

The nation has never had a division of responsibility in the armed services. The chain of command has run straight through from the ranks to the top professional chiefs, then to the secretaries, and through the secretaries to the President. Control of military policy has remained in civilian hands. The armed services have sought to remove that control many times throughout our history, but so far have never succeeded.

In its security of the plan, Congress should study this feature carefully. We have never had a military vote in this country and the post-war need for one is not apparent now.

Secrecy is Unnecessary

Few governments anywhere other than waging the war carry more vital implications to American industry than the current workings of the Surplus War Property Administration. To the nation's aircraft and airline companies every move made on the surplus disposal picture has a direct effect on the future.

Yet no government source has been permitted so far to divulge the steps—past, present, or contemplated—in working out a policy. Officials close to the SWPA are themselves concerned with the mantle of secrecy. Members of the board have been instructed not to talk, and these instructions have filtered down through the various organizations, with the result that the SWPA is working behind the scenes to a greater degree than the armed forces, which have a logical and legitimate reason for secrecy.

Many working with the SWPA are in sharp disagreement with this procedure which, careful investigation appears to indicate, has been formulated at the highest levels and for that reason is being observed.

This policy will backfire inevitably. Any agency so important will soon find itself the subject of rumors and half-truths which will build up a distrust in the public mind difficult to eradicate.

The people must know what the Surplus War Property Administration is doing and why. It is press conferences held infrequently, with little specific information released, is not the answer to this question. It is another example of the failure to apply proper public relations to a government function.

ROBERT H. WOOD

New trainees learn to spot faulty welding problems faster... "old hands" can increase their efficiency... with the help of this new 24-page book. By stressing accurate visual inspection, it helps boost both weld quality and quantity.

Each of the 14 most common welding troubles is illustrated with a typical "good" and "bad" example; causes are analyzed, and specific suggestions for cure are outlined.

The book is pocket-size—ideal for plant distribution. Welders can take it home to read or keep it handy on the job.

It's a helpful trouble shooter for problems like splatter, corrosion, undercutting and brittle joints. Order a copy of this booklet for each of your welders today.

This same information is also made available by Westinghouse in chart form for wall mounting. Write for free copies of booklet W-3316 and chart DC-128 on your company letterhead. Please state exact quantities required. Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa., Dept. 7-81.

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AIRCRAFT WELDING EQUIPMENT



Tryout with Tracers

Not all laboratories are housed in buildings. This lonely ravine, for example, occasionally is used as a laboratory, when G-E engineers want to test electric equipment for aircraft turrets under actual firing conditions. Here is one of the famous Martin turrets going through its paces while engineers check the performance of the G-E turret-control system.



**PRECISION PRODUCTS
AND
ENGINEERED SYSTEMS
FOR AIRCRAFT**

Today, a considerable portion of our vast research and engineering facilities is at work on new products and systems for aircraft. Soon, many new G-E devices will take their places in the fight for freedom alongside their well-known predecessors—turbosuperchargers, Martin turret controls, aircraft transformers, capacitors, relays, motors, control, etc.

Whether you fly planes or build them, you can depend on the products that carry the G-E monogram. They are expertly engineered and precisely built, to give long life and reliable operation under severe combat conditions on every fighting front. *General Electric Co., Schenectady, New York.*

Every week 192,000 employees purchase more than a million dollars' worth of War Bonds

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